Missouri Adaptive Enterprise Architecture

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State of Missouri

Part II

Architecture Processes & Templates

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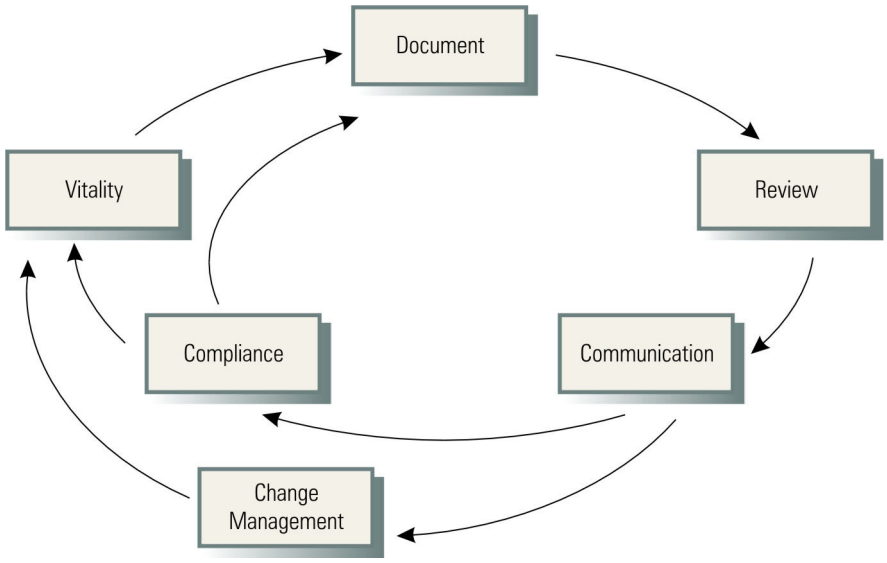
PART II – Architecture Processes & Templates

Introduction

Part II of the Missouri Adaptive Enterprise Architecture Manual documents the processes and templates used to manage and produce the Architecture Blueprint. The process to manage updates and adjustments to the Missouri Adaptive Enterprise Architecture Manual is documented as well in the Change Management Process.

The Architecture Blueprint processes and templates are vital to the success of the Missouri Adaptive Enterprise Architecture. Architecture is a living set of interrelated pieces. Figure 1, Architecture Process Overview shows how the architecture processes interact with each other to create a continuous cycle of renewal.

Figure 1. Architecture Process Overview



The cycle of renewal is achieved with a structure of reusable processes and templates. The processes covered in MAEA Manual Part II, Chapters 1 – 6 are provided in the order, following the flow of the Architecture Lifecycle diagram (Figure 1) beginning with the Documentation of the Architecture Blueprint.

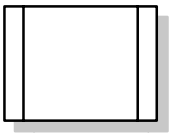
The Architecture Blueprint processes and templates are vital to the success of the Missouri Adaptive Enterprise Architecture.

Processes Legend Overview:

The following legend provides the symbols used in the process models throughout the MAEA Manual.

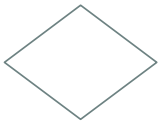
Figure 2. Process Legend

The shadowed process box represents processes that are futher defined in process steps as part of the Architecture. Process models and detailed narrative for these processes are documented in this MAEA Manual.



This shadowed shape represents processes or sub-processes that are external to Architecture, but have links to the Architecture processes. Details for these processes are documented within the responsible department. The touch-points between these processes and the Architecture are documented within this manual.

This shape represents process steps . Narrative for each process step is included in the narrative, immediating following the process model.



The decision shape represents decision points within the process. Annotations are used to futher show the criteria for the decision.

The standard data shape is used in this manual to represent dynamic data such as the Architecture Blueprint.

This shape represents documents of various types. Summarized information that is exchanged within a process, the documentation provided to interested parties and the MAEA Manual are examples of these documents.

This shape is used to represent a reference to a starting point on a separate process model page.

This shape is used to represent a reference to another item on the same page of the process model.

This shape represents a termination point within the processes or sub-processes.

Architecture Processes Overview

The Architecture Governance processes identified in this part are an integral piece of the overall IT management processes used to implement technology solutions within the State. The diagram in Figure 3 shows the integration of the Architecture Processes with external management processes.

The process flow is from the perspective of a living architecture. The main information flow will be triggered from the Architecture Compliance and Architecture Vitality processes. The listing below and the brief overviews of the processes follow the flow of the diagram.

Regardless of the flow, the processes are the same, only the entry point changes.

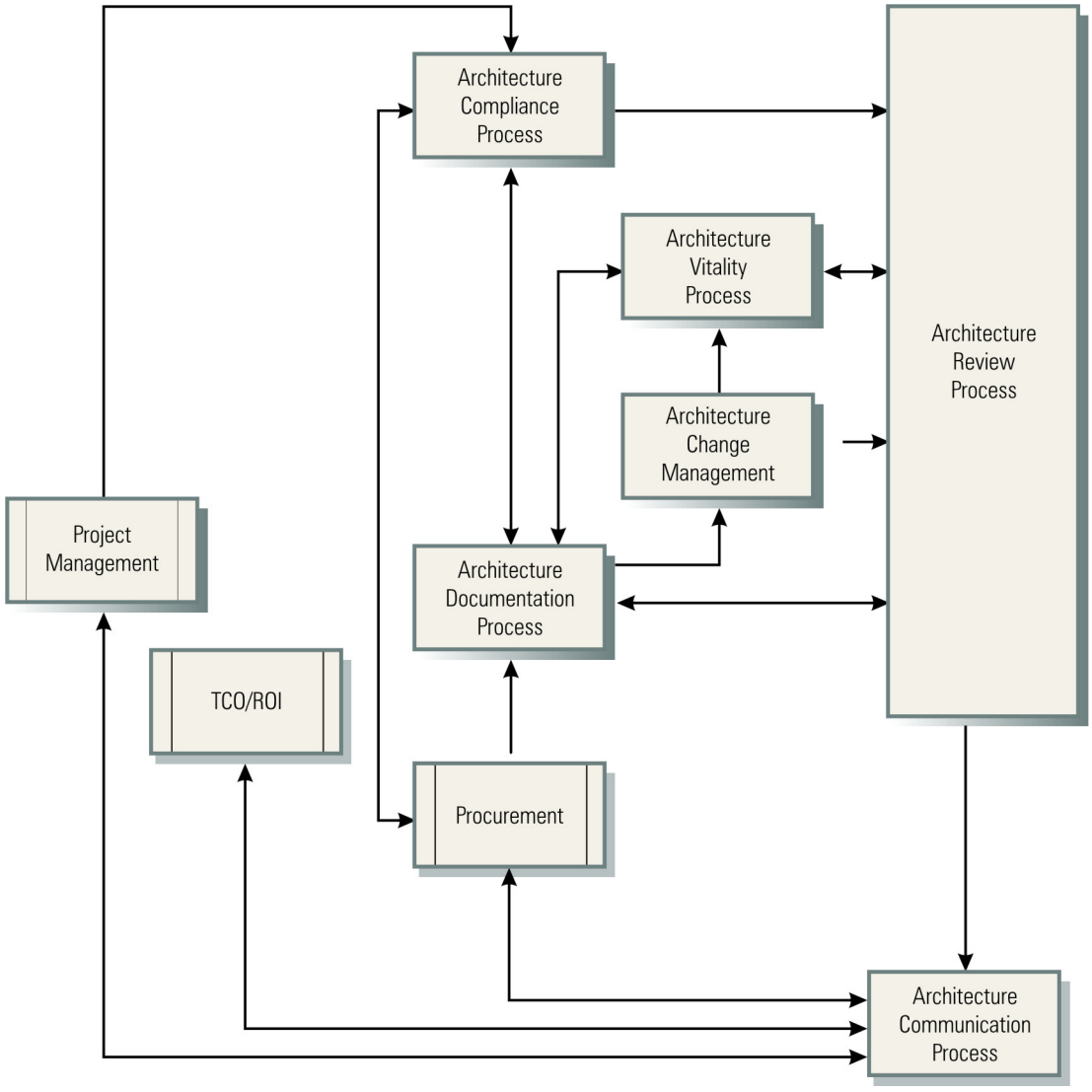
There are six primary processes:

- Architecture Compliance Process
- Architecture Vitality Process (Blueprint Vitality)
- Architecture Documentation Process
- Architecture Review Process
- Architecture Communication Process
- Architecture Change Management (MAEA Manual Vitality)

Associated management processes include:

- Project Management
- TCO/ROI
- Procurement

Figure 3. Architecture Processes



Architecture Compliance Process

The State of Missouri IT community has undertaken the development of Enterprise Architecture with the understanding that it is an appropriate and tactically sound approach to managing information technology from a statewide perspective. With consensus achieved, it is assumed that compliance will be a voluntary process. Agencies will adhere to defined architectural strategies because it is an expedient, efficient, and globally accepted process. Groups outside of the Architecture Committees will have the most interaction with the Adaptive Enterprise Architecture through the Architecture Compliance Process and Architecture Communication Process.

One of the Project Management integrations with the Adaptive Enterprise Architecture occurs during the Architecture Compliance Process. Project teams should add Architecture Compliance to their project plans and estimates.

During this process, architecture help can be sought from the Architect Office, to aid in determining a technology solution. Reviews of existing architecture product components and new technology scans can be conducted to aid in finding a technology solution.

Circumstances exist that will preclude the use of the documented standards. The formal compliance process allows for the review and acceptance of variances from the statewide architecture. Agencies will be allowed to submit deviations. These deviations should be presented with an appropriate business case stating the reasons for the variance. Legitimate business cases will be reviewed and those accepted will be documented as approved variances during the Architecture Review Process.

Results from accepted variances feed the Architecture Vitality Process during its periodic kick-offs.

Details of the Architecture Compliance Process are covered in MAEA Part II - Chapter 4: Architecture Compliance Process.

Architecture Vitality Process

Vitality is the process that insures that the Architecture Blueprints remain current and accurate. This is a major requirement of the overall architectural processes. To ensure vitality, the Enterprise Architecture must be reviewed from a business strategy, an IT strategy, and a study of technology directions. Input must be provided from the Architecture Executive Committee for the business strategy, and from the ITAB and Architecture Review Committee for the IT strategy. The subject matter experts must ensure that technology solutions are extensible and sustainable.

Any time business strategies, IT strategies, or technology solutions shift noticeably, an architectural vitality review may be required. Architectural reviews should occur every four to six months at a minimum.

Once the Architecture Vitality Process is kicked off, the bulk of the changes will be documented in the Architecture Documentation Process. A summary of the

Architecture Blueprint changes will be produced and presented the next time the Architecture Review Process is initiated.

Details of the Architecture Vitality Process are covered in MAEA Part II - Chapter 5: Architecture Vitality Process.

Architecture Change Management Process

The Architecture Change Management Process addresses changes to the MAEA Manual. It does not address changes to the Architecture Blueprint itself. Instead, the Architecture Change Management Process defines how the MAEA Manual will be kept vital as changes in technology are applied within the State and new Technology Trends, Best Practices and Business Drivers are realized.

The Architecture Change Management Process is defined, planned and controlled by the ARC, but the ITAB, or the AEC may initiate actions.

Details of the Architecture Change Management Process are covered in MAEA Part II - Chapter 6: Architecture Change Management Process.

Architecture Documentation Process

The Architecture Blueprint is produced during the Documentation Process. The Architecture Blueprint articulates the State's architecture, showing classifications for products and compliances as emerging, current, twilight, or sunset. Products and compliances are also denoted as accepted or rejected during the creation and review of the Architecture Blueprint. From this documentation process, a wealth of information can be drawn to aid agencies in determining technology solutions.

The documentation is developed by Domain Committees. A Domain Committee is comprised of subject matter experts who are familiar with the State's IT environment. The Architecture Documentation Process is the lengthiest of the Architecture Blueprint processes. The process can be triggered from other Architecture processes, including:

- Initial MAEA Manual creation which then initiates the Architecture Educational Sessions and Domain Committee Working Sessions
- Help request generated during the Architecture Compliance Process
- Periodic Architecture Vitality Process initiations by the Chief Architect
- Documenting the results from the Architecture Review Process

The Architecture Documentation Process provides the dynamic information that the Architecture Communication Process uses.

Details of the Architecture Documentation Process are covered in MAEA Part II - Chapter 1: Architecture Documentation Process.

Architecture Review Process

The review process allows the Architecture Governance committees to review, debate, discuss, and decide the various additions and changes to the Architecture Blueprint and MAEA Manual. The review process also determines which variances will be accepted into the State's IT Portfolio.

The proposed architecture changes can come from any of the following processes:

- Architecture Compliance Process
- Architecture Vitality Process
- Architecture Documentation Process
- Architecture Change Management Process

Details of the Architecture Review Process are covered in MAEA Part II - Chapter 2: Architecture Review Process.

Architecture Communication Process

Good communications is required to ensure that all users of the IT architecture understand the objectives of the architecture plan and its significance to the State of Missouri. In addition, all users must have access to the latest version of the Architecture Blueprint in order to make educated decisions about future business and technology solutions.

This requires a mechanism that communicates with all users to ensure that their activities are synchronized with the plan. Appropriate documentation must also be available to contractors and vendors who expect to do business with the State. In many instances, their products and services will be required to conform to the State's architecture.

Details of the Architecture Communication Process are covered in MAEA Part II - Chapter 3: Architecture Communication Process.

Management Processes

Management processes are those processes that are external to Architecture, and yet have links to or are touched by the Architecture Lifecycle Processes. Currently these processes include:

- Project Management
- TCO/ROI
- Procurement

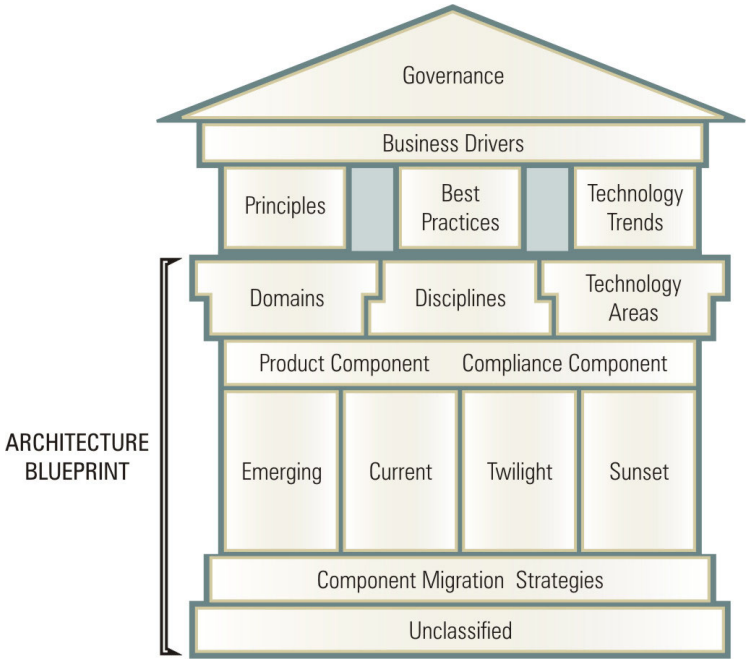
These processes are fully defined processes in their own right. The process documentation resides within the department responsible for the process. For example, the process detail for procurement is documented within the Procurement Department. Details for the interaction points of these processes with the Architecture processes will be covered in MAEA Part II – Chapter 7: Management Processes.

Architecture Blueprint Structure Overview

The Architecture Blueprint is the collection of dynamic data that defines and categorizes the products, configurations and compliances (guidelines, standards and/or legislation) regarding the technology in use or being considered within the state of Missouri.

In order to discuss the various pieces of enterprise Architecture Blueprint it is helpful to get an overall picture of how the major pieces fit together. As can be seen from the Enterprise Architecture Framework graphic in Figure 4, the Enterprise Architecture Pillars (Principles, Best Practices and Technology Trends) are overarching the Architecture Blueprint.

Figure 4. Enterprise Architecture Framework



The Architecture Blueprint is broken out into five major levels:

- Domains
- Disciplines
- Technology Areas
- Product Components
- Compliance Components

Domains are the natural divisions of the technical architecture and form the main categories of Missouri's Enterprise Architecture Blueprint.

Each Domain identified will be developed and documented by a Domain Committee made up of subject matter experts who are familiar with the State's IT environment. The logical functional subsets of a Domain are called **Disciplines**. Disciplines allow further breakdown of the Domain into manageable pieces, especially for Domains that cover large and/or diverse topics. Each Discipline is a cohesive unit with regard to its subject areas and stakeholders. The Systems Management Domain provides a good example of a Domain with multiple Disciplines:

DOMAIN	*DISCIPLINES*
Systems Management	Asset Management
	Change Management
	Console/Event Management
	Help Desk/Problem Management
	Business Continuity

Each Domain will have one or more Disciplines. As with Domains, additional Disciplines may be identified during the development or evolution of the Enterprise Architecture.

Technology Areas are those technical items or topics that support the functionality of the architecture. Often subject matter experts are associated with specific Technology Areas. Technology Areas are identified and addressed within each Discipline as appropriate for the Discipline.

A few examples of Technology Areas from within the Database Management Discipline are:

- Relational Database
- Flat File Systems
- Desktop Database
- Data Models

Each of these Technology Areas may have products and/or compliance criteria associated with it. At this level, the technical details of the architecture start to form.

Product Components include the products or product families that are specific to a Technology Area. Examples of Product Components identified within the Technology Area of Data Models include ERWin, Visio, and Designer 2000.

The documentation of each Product Component includes the evaluation criteria that the Domain Committee will use to determine how to classify the product. (Classifications include: emerging, current, twilight, or sunset. This concept is explained in detail in Chapter 1 Architecture Documentation Process).

Compliance Components identifies guidelines, standards and legislative mandates associated with a Discipline, Technology Areas, and/or Product Component as appropriate. Guidelines, standards and legislative mandates differ primarily in the degree of compliance prescribed by each.

Compliance Components (guidelines, standards and mandates) can be documented at the Discipline, Technology Area, and/or Product Component level and provide the basis for making important decisions about new products, protocols, configurations, etc. The same template for evaluation, classification, and documentation can be used for Compliance Components at all three levels.

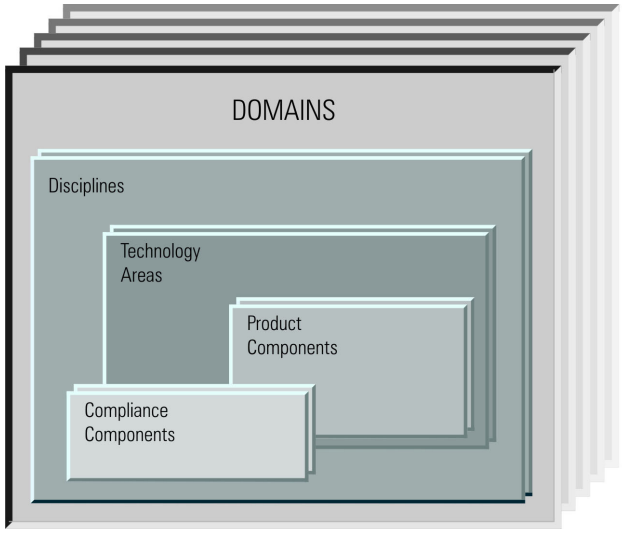
Unclassified

All Product Components and Compliance Components are first documented in the architecture as unclassified. It is through evaluation and a review of migration strategies that the component's classification will be ultimately determined. A consistent set of fit criteria has been developed to aid in this evaluation. The procedures for the evaluation process can be found in Part III Appendix G – EA Component Evaluation Workbook.

Summary

Figure 5 provides a pictorial view of the relationship between the five Architecture Blueprint levels. As can be seen from the graphic, these pieces work together to ensure the complete documentation of the Domains that form the Architecture Blueprint.

Figure 5. Template Relationships



- *Each Domain may have one or more Disciplines.*
- Each Discipline will contain detail for one or more *Technology Areas.*
- *Product components are specified under Technology Areas as appropriate.*
- *Compliance Components can be documented at the Discipline, Technology Area, and/or Product Component levels, using the same template.*

Figure 6. 3 Samples from Information Domain

DOMAIN	Information
DISCIPLINE	Data Management
TECHNOLOGY AREA	Relational Database Flat File Systems Desktop Database Data Models
PRODUCT COMPONENT	Oracle Sybase DB2 ERWin Designer 2000
COMPLIANCE COMPONENT	Data Model Denotations-Crows feet Normalization Column Naming Standards

Architecture processes are presented in the remainder of MAEA Part II. Each process will have a Process Model and Narrative section. Where a template is used, the template is documented immediately following the process that called for its usage.

Every architectural domain will have an Architecture Domain Committee that is responsible for developing proposed standards and maintaining the domain content.

CHAPTER 1: Architecture Documentation Process

Overview

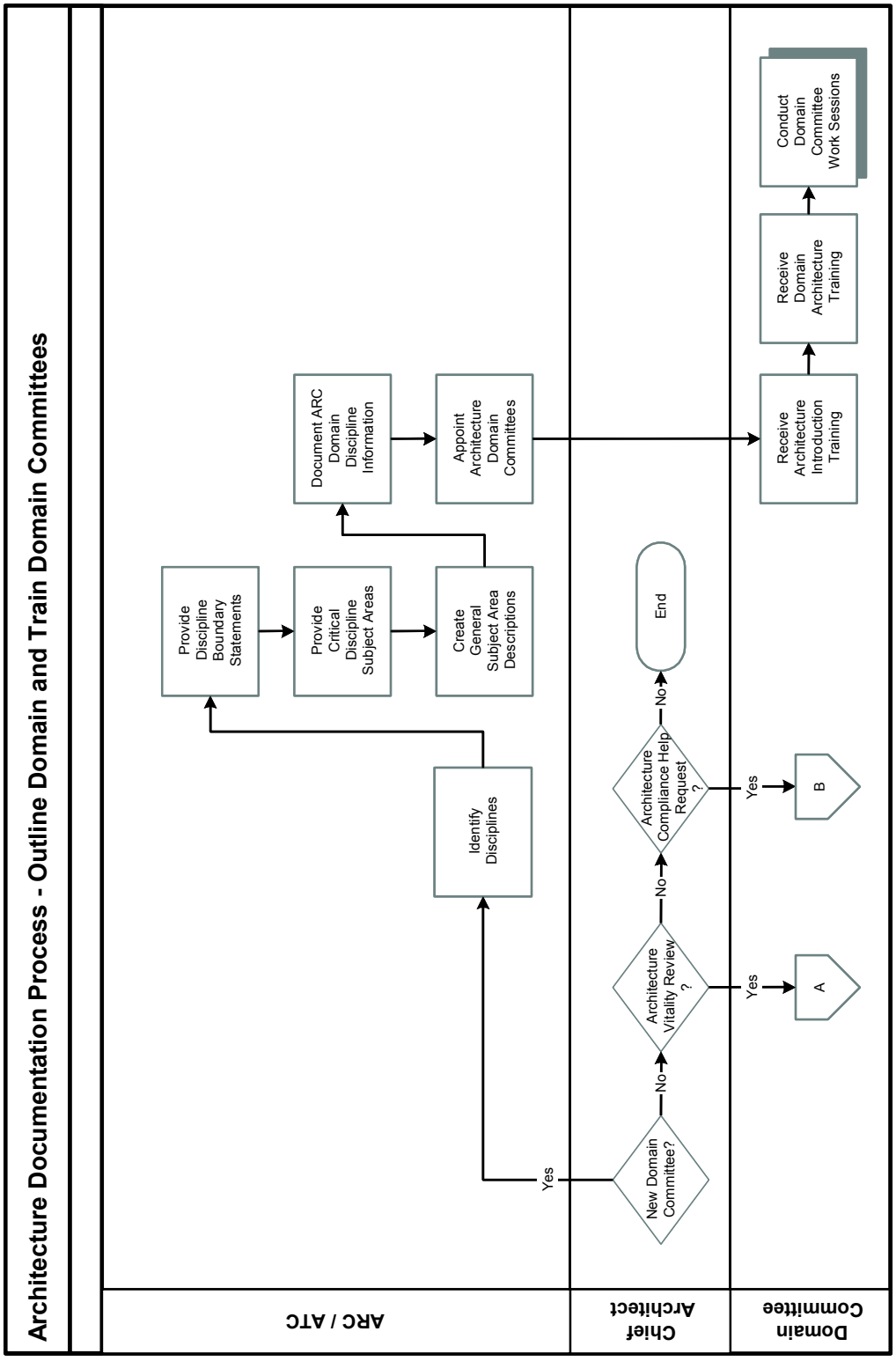
The process of creating the Architecture Blueprint is made up of eight sub-processes to help document and evaluate the five template levels of detail covered by the Architecture Blueprint. The sub-processes include:

- Outline Domain and Train Domain Committees
- Conduct Domain Committee Work Sessions
- Complete / Update Domain Template
- Complete / Update Discipline Template
- Document / Update Technology Areas
- Document / Update Product Components
- Document / Update Compliance Components
- Evaluate Compliance / Product Components

Sub-Processes & Templates

Each of sub-processes follows the same format:

Sub-Process
- Process Model
- Process Detail
- Template (if applicable)
  - Overview
  - Sections
  - Sample Template Form
  - Template Detail


Architecture Documentation Process - Outline Domain and Train Domain Committees
ARC / ATC
Chief Architect
Domain Committee
Provide Discipline Boundary Statements
Provide Critical Discipline Subject Areas
Create General Subject Area Descriptions
Document ARC Domain Discipline Information
Appoint Architecture Domain Committees
Identify Disciplines
New Domain Committee?
Yes
No
Architecture Vitality Review ?
Yes
No
A
Architecture Compliance Help Request ?
Yes
No
B
End
Receive Architecture Introduction Training
Receive Domain Architecture Training
Conduct Domain Committee Work Sessions

Outline Domain and Train Domain Committees

Three events can trigger the Architecture Documentation process:

- New Domain Committee
- The Architecture Vitality Process
- The Architecture Compliance Process (Help Request)

The starting point differs depending on the event that triggered the documentation process. The following explains the starting points and rationale:

- New Domain Committee Trigger – Upon set-up of a new Domain Committee, the committee needs to be supplied with basic frames for the Domains and Disciplines. Committee members also need to be trained in the various architecture processes and templates.
- Architecture Vitality Process Trigger – This periodic process verifies that the Architecture Blueprint continues to stay current with the changes in the business and technology world, and the MAEA Manual. Vitality can impact the Architecture Blueprint from the Domain level down.
- Architecture Compliance Process Trigger – IT groups can request architecture help from the Architect Office in determining the best solution for their needs. They can also request a new technology be reviewed for compliance. This process is initiated with an Architecture Help Request. Compliance can impact the Architecture Blueprint from the Technology Area level down.

Identify Disciplines, Provide Discipline Boundary Statements, Provide Critical Discipline Subject Areas, and Create General Subject Area Descriptions – the Architecture Review Committee and the Architecture Technology Committee develops and provides:

- A definition for each Domain and Discipline that has been identified
- Parameters for identifying the boundaries of each Domain and Discipline
- Subject Areas and general descriptions of subject areas are included in the Domains and Disciplines

Subject Areas provide the information that the Architecture Review Committee and Architecture Technology Committee provides to the Domain Committees as topics to be addressed. These subject areas can represent various levels of detail.

Document ARC Domain / Discipline Information – All of the information developed and gathered in the previous processes will be documented and feed into the educational sessions and Domain Committee working sessions.

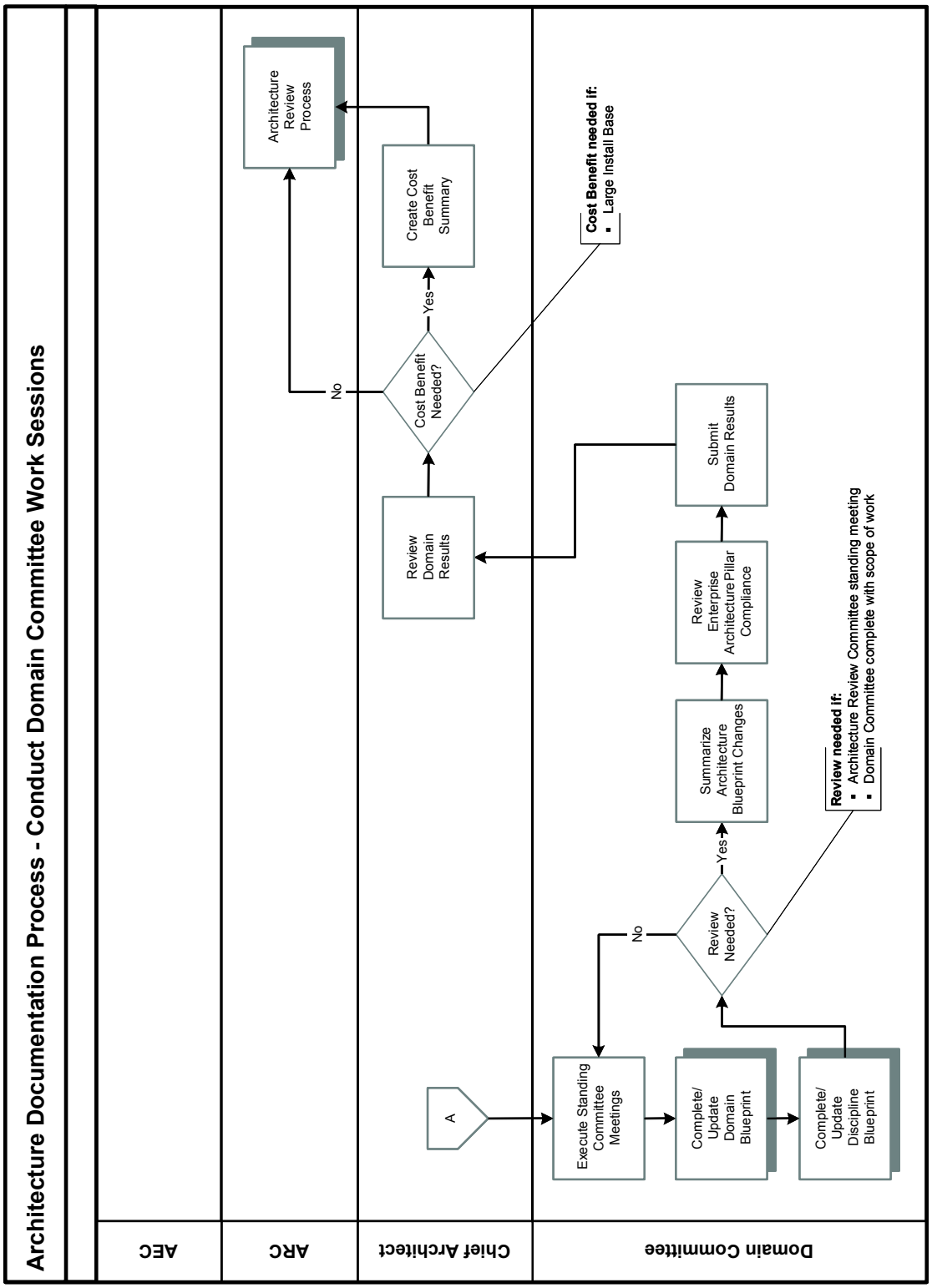
Appoint Architecture Domain Committees – After the development of this initial detail, the Domain Committees will be appointed from subject matter experts who are familiar with the state's IT environment.

Receive Architecture Introduction Training, Receive Domain Architecture Training, and Conduct Domain Committee Work Sessions - These committees will receive three progressive educational sessions:

- Architecture Introduction – covering MAEA Part I –Architecture Administration, as well as a high-level overview of MAEA Part II – Architecture Processes & Templates
- Domain Architecture Training – covering MAEA Part II in detail, as well as reviews of the Domains/Disciplines/Subject Areas provided by the ARC
- Domain Committee Work Sessions – Working sessions that apply knowledge gained in the two educational sessions, to undertake the development of the Architecture Blueprint documentation

The detail for these three sessions is provided in MAEA Part III – APPENDIX C: Architecture Educational Approach.

The objective of the Domain committees is to develop or select Compliance Components (guidelines, standards, and mandates) for the various levels of the Architecture Blueprint (Disciplines, Technology Areas, Product and Compliance Components). The level of detail in each Domain's Architecture Blueprint may vary depending on the requirements for specificity. Some Domains Committees may only identify guideline compliances at the Discipline level, while others may have very definitive standards for configurations at the product level. It is the purview of the Domain Committee to determine the appropriate level of specificity required. This decision should be documented in the Discipline Documentation Requirements section of the Discipline Template.


Architecture Documentation Process - Conduct Domain Committee Work Sessions
AEC
ARC
Chief Architect
Domain Committee
Architecture Review Process
Create Cost Benefit Summary
Cost Benefit Needed?
Yes
No
Cost Benefit needed if:
▪ Large Install Base
Review Domain Results
Submit Domain Results
Review Enterprise Architecture Pillar Compliance
Summarize Architecture Blueprint Changes
Review Needed?
Yes
No
Review needed if:
▪ Architecture Review Committee standing meeting
▪ Domain Committee complete with scope of work
A
Execute Standing Committee Meetings
Complete/ Update Domain Blueprint
Complete/ Update Discipline Blueprint

Conduct Domain Committee Work Sessions

These work sessions are intended to produce the documentation that initially populates the Architecture Blueprint. Ongoing Domain Committee meetings will be required to maintain the vitality of the Domain's Architecture Blueprint. The Chief Architect or the Domain Chairperson may call meetings to address architectural issues related to the Domain. It is possible that contractual services could be used to assist with research on the Domain contents. The Domain Chairperson will facilitate the work sessions. Members of the Architecture Technical Committee will assist with the facilitation to lend consistency and historical perspective to the process.

Execute Standing Committee Meetings – The first committee meeting will include:

- Defining roles and responsibilities
- Review documentation requirement
- Determine expectation of on-going meetings

After the first meeting, the on-going committee meetings will continue, triggered from architecture processes including:

- Architecture Documentation (outstanding items to complete)
- Architecture Review Process
- Architecture Compliance Process
- Architecture Vitality Process

Summarize Architecture Blueprint Changes – Based on changes that have occurred since the last periodic review, the Domain Committee will pull together a summary. This summary should list all of the changes to the Architecture Blueprint for that Domain throughout the five levels.

Review Enterprise Architecture Pillar Compliance – The changes being submitted for a specific Domain may cause a conflict with one of the Enterprise Architecture Pillars. This process step assures that the Domain Committee takes a high-level review of the Domain's Architecture Blueprint to verify that no conflicts exist. Where conflicts exists, an Architecture Change Request is provided to the Chief Architect.

Submit Domain Results – Based on time or completion of a documentation process the available Domain blueprint results will be pulled together and submitted to the Chief Architect.

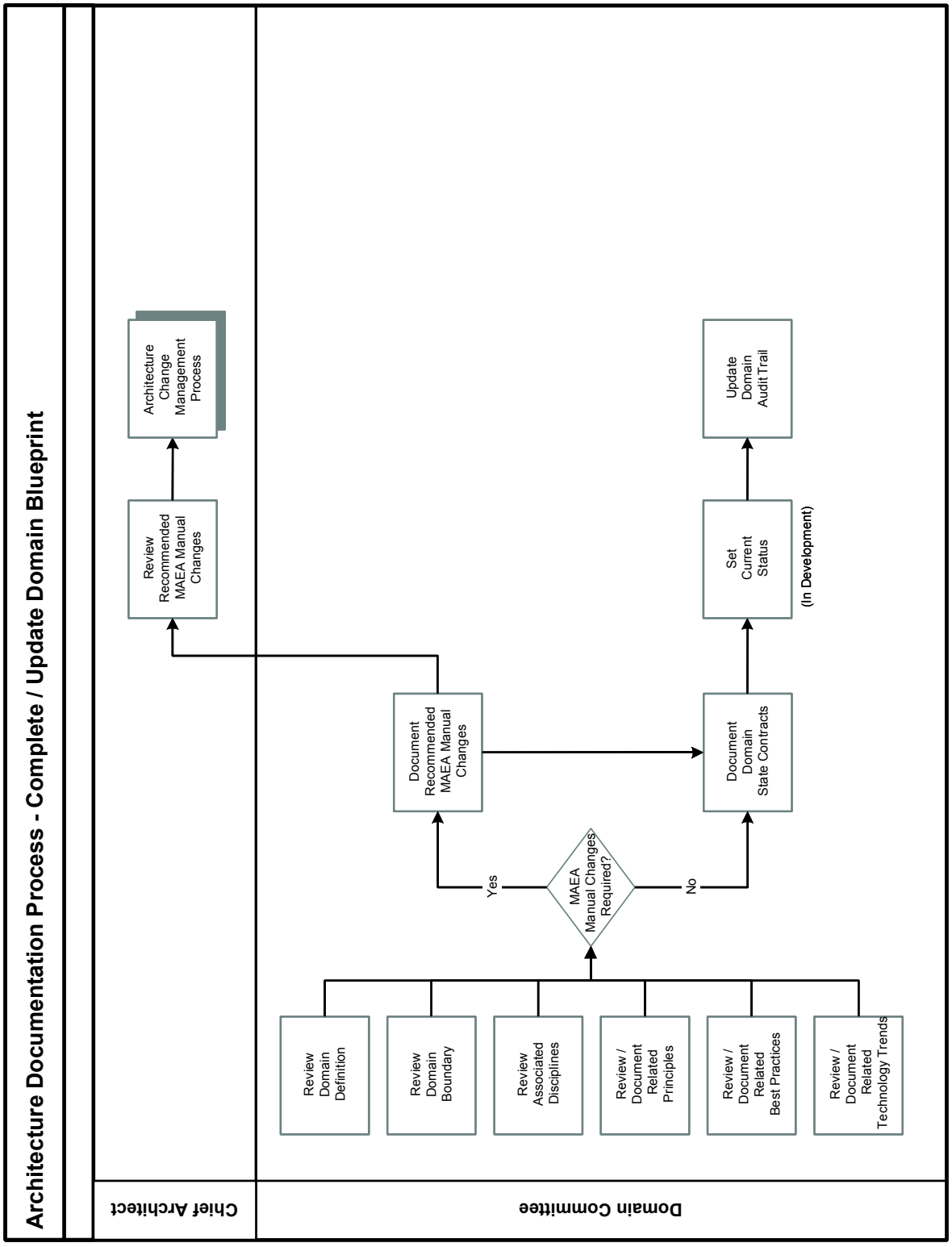
Review Domain Results – The Chief Architect receives, reviews, and summarizes the Domain results.

Create Cost Benefit Summary – Based on the type of Domain results being submitted a decision on the need for cost benefit information to aid in the Architecture Review will be determined. Items such as a large install base would be candidates for cost benefit analysis.

Architecture Review Process – Once the Domain results have been prepared the Document will be presented and reviewed at the next architecture review meeting. The Domain Committee can also initiate the review by completing a scope of work. Examples include:

- Finishing a set of Discipline's Technology Areas
- Completing a technology scan and documentation to aid an Architecture Help Request

This meeting's process is documented in the Architecture Review Process (MAEA Part II - Chapter 2).


Architecture Documentation Process - Complete / Update Domain Blueprint
Chief Architect
Domain Committee
Review Domain Definition
Review Domain Boundary
Review Associated Disciplines
Review / Document Related Principles
Review / Document Related Best Practices
Review / Document Related Technology Trends
MAEA Manual Changes Required?
Yes
No
Document Recommended MAEA Manual Changes
Document Domain State Contracts
Set Current Status
(In Development)
Update Domain Audit Trail
Review Recommended MAEA Manual Changes
Architecture Change Management Process

Complete / Update Domain Blueprint

Using the Domain Template as a guide, the Domain level of the Architecture Blueprint will be completed/updated. The following process steps need to be followed to aid in this documentation:

Review Domain Definition, Review Domain Boundary, and Review Associated Disciplines – The definition of the Domain and the primary subject areas are provided to the Domain Committee during the facilitated workshop training. The Domain Committee will have the responsibility of reviewing:

- Domain definition and Domain boundary
- Associated Disciplines

Recommended MAEA Manual Changes should be submitted if:

- Enhancements to the MAEA Manual are identified.
- Additional subject areas are required.
- Additional Disciplines are required.

This request is submitted to the Chief Architect for validation prior to any further work on that recommendation. All other work can continue while the recommendation is being reviewed.

Review / Document Related Principles – A review of principles (MAEA Part I - Chapter 4) should be conducted. The Domain Committees are not expected to develop additional principle statements. They must however, ensure that the development of their Domain does not conflict with the established principles. They should identify principles that apply most directly to their Domain and elaborate on (and document) the relationship between their Domain and the principle.

Review / Document Related Best Practices – A review of global best practices (MAEA Part I - Chapter 5) should be conducted. Best practices that are specific to the Domain and not included in MAEA Part I - Chapter 5, should be defined and documented as a Compliance Component (either as a guideline or a standard). The Domain Committee should confirm that the development of the Domain does not conflict with the global best practices and expound on those that most appropriately relate to their Domain.

Review / Document Related Technology Trends – A review of global technology trends (MAEA Part I - Chapter 6) should be conducted. The Domain Committee should confirm that the development of the Domain does not conflict with the global technology trends identified by the Architecture Committee. Additionally identification of the technology trends that most affect the Domain, and the relationship to the Domain, should be documented. Technology trends that are specific to the Domain and not included in MAEA Part I - Chapter 6, should be defined and documented as Discipline specific technology trends.

Document Recommended MAEA Manual Changes, Review Recommended MAEA Manual Changes and Architecture Change Management Process – Any changes that need to be done to the definition, boundary, principles, best practices, and technology trends prior to proceeding with the Domain documentation should be documented and submitted to the Chief Architect. These types of changes can affect more than just the Domain committee requesting the modification. The Chief Architect will review the recommended changes and submit them to the Architecture Change Management Process for inclusion or exclusion in the MAEA Manual.

Document Domain State Contracts – Existing or planned State contracts that address the specific Domain technologies should be identified. This part of the Domain template should be completed after documenting the Technology, Product, and Compliance Components under the Domain.

Editorial note: It is anticipated that current working documents that exist in the Division of Purchasing will be used to identify contracts that relate to the Domains. These documents currently reside on the Purchasing web page, and can be referenced by anyone. Specific documents and detailed access procedures still need to be defined. All contracts should reflect the global architecture principles and Domain Compliance Components.

Contract Implications on Architecture:

- Support – Contracts need to be adapted to enterprise wide architecture
  - Time to resolve problems
  - Training if competence is needed, include specifics about volumes and time
  - Consulting, if internal competence is not available.

- Flexibility – Contract must support adaptive range of architecture
  - Possibility to move licenses between different operating systems and platforms
  - Licenses not tied to specific sites, organizational units or projects

- Scalability – Contracts should be tailored to handle varying needs over time.
  - Up-scaling of volumes should be covered in the contract
  - Support needs should be flexible, contract should not lock in to long term, high level support

- Products – Products will evolve and may be merged into new product families or have their names changes. The contract should indicate how the vendor handles new or revised products.

Set Current Status – Because so many documents move through the documentation process at one time, it is important to understand where a given document is in the process. Statuses include:

- In Development – Indicates the specific document is being defined.
- Under Review – Indicates the document is being reviewed.
- Accepted – Indicates the ARC has accepted the document into the architecture.

- Rejected – The document was rejected by any governance group during the reviews. The reason for rejection must be documented in the audit trail information.

Update Domain Audit Trail – Audit trails for the information provided in the templates should be maintained. During this initial development of the Domain only the creation, accepted/rejected, and last date updated information needs to be maintained.

Domain Template

Template Overview

This is the highest level of the architectural documentation framework. The definition and development of Domains is a process that will evolve and change as information is gathered and documented.

The Architecture Committees have been involved in a high-level review process to define and document the initial set of Domains. The initial set of Domains that make up the technical architecture include:

- Interface
- Infrastructure
- Application
- Security
- Information
- Integration
- Systems Management
- Privacy

It is anticipated that Domain Committees may identify additional Domains during the development or evolution of the Enterprise Architecture. The identification process steps are defined in Process: Complete Domain Template

The subcommittees and other architecture stakeholders are encouraged to provide feedback and suggestions to the Chief Architect whenever it is apparent that the feedback will enhance the architecture.

Template Sections

The Domain Template will include the following sections:

- Definition
- Boundary
- Associated Disciplines
- Principles
- Best Practices

- Technology Trends
- State Contracts
- Current Status
- Audit Trail

Template Form Sample

The Domain Template provides a vehicle for documenting the Domain details in an electronic format. The visual representation of the Domain Template, provided here, is followed by the detailed description of its contents. The Domain Committee members may access ***MAEA Domain Template.dot*** for electronic entry of the Domain detail.

Domain Template

DEFINITION	
Name	
Description	
Rationale	
Benefits	

BOUNDARY	
Boundary Limit Statement	
Subject Areas	

ASSOCIATED DISCIPLINES	
List Disciplines under this Domain.	

PRINCIPLES

Related Enterprise Principles

Principle	Conflict	Relationship
GP1 – IT is an Enterprise-wide Resource	☐	
GP2 – IT support the State's long-term business, strategies, and plans.	☐	
GP3 – Enterprise Architecture represents a target IT environment	☐	
GP4 – All State Info Systems will comply with the Enterprise Architecture	☐	
GP5 – Enterprise Architecture is adaptive and must evolve.	☐	
GP6 – CIO and ITAB will provide leadership to the State on the use of technologies to encourage business innovations.	☐	
MP1 – Accountability will be established for all IT assets.	☐	
MP2 – State agencies will implement an organizational structure that supports architecture.	☐	
TP1 – Agencies will develop and implement technology solutions based upon industry standards in compliance with the Enterprise Architecture.	☐	
TP2 – The state agencies will actively seek opportunities to share and re-use IT assets.	☐	
TP3 – State will use a standard set of proven technologies.	☐	
ADP1 – A business process analysis and review must always accompany automation efforts.	☐	
ADP2 – The order of preference for solution should be based on reusable components.	☐	
ADP3 – Applications programs will be architected with separation of presentation logic, business logic, and data access.	☐	

ADP4 – New applications will use defined and documented standards-based programming interfaces	☐	
UI1 – User interfaces will be consistent, intuitive and support multiple access delivery channels.	☐	
SP1 – The integrity, confidentiality and security of state systems and data will be protected.	☐	
SMP1 – Technology selection will consider the ability to support centralized systems management of all Technology Components.	☐	
DMP1 – Data is an enterprise-wide resource.	☐	
DMP2 – State will promote the use of electronic data capture and encourage the use of electronic serve delivery.	☐	
DMP3- State will make the timely, accurate and complete data available to our stakeholders.	☐	

BEST PRACTICES

Related Best Practices

Best Practice	Conflict	Relationship
BP1 Enterprise architecture must be an in-sourced effort.	☐	
BP2- The developer's roles must be partitioned to facilitate layered application development.	☐	
BP3 – IT resources should be focused on the agency's mission.	☐	
BP4 – Application systems must be "significantly layered" & loosely coupled".	☐	
BP5 – Applications systems should be designed using an n-tier model.	☐	
BP6 – We should leverage the data warehouse technologies to accelerate decision-making and reduce the development burden.	☐	
BP7 – End users become more knowledgeable about how to analyze and access information. The interfaces across separate logical boundaries must be message based and extend to all stakeholders to include citizens, employees and vendors.	☐	
BP8 – Enterprise Network as Virtual LAN – We must implement an enterprise wide backbone network that provides a "single network image" as if it were a virtual, enterprise wide LAN.	☐	
BP11 – Separate OBTP from Data Warehouse – We should separate transaction processing (OLTP from the data warehousing & other end-user computing.	☐	
BP12- Comprehensive "Work" Architecture – Evolve a comprehensive "information architecture" that encompasses the entire "work architecture" – process models, "events", transaction data, state descriptions and so fourth.	☐	
BP13 – Data redundancy will be documented and managed effectively.	☐	
BP14 – Metadata should be documented in such a way as to allow an authorized user to make use of the data in end user query and decision support tools.	☐	
BP15 – The state will use a standard set of proven technologies; the proliferation of technologies will be avoided.	☐	
BP16 – Technology selection will consider, in addition to functionality, the ability to support systems management disciplines that are oriented toward centralized management of all Technology Components.	☐	

BP17 – New applications will be modular and independent ("atomic) in nature. They will access common data, use common services and have only inherently essential dependence on other applications (e.g. for provision of up-to-date data).	☐	

TECHNOLOGY TRENDS

Related Technology Trends

Technology Trends	Conflict	Relationship
TT1 – A sever shortage of qualified IT professionals is resulting in stiff market competition.	☐	
TT2 – The performance of computer hardware will continue to grow exponentially, while costs continue to decline dramatically (Moore's Law.)	☐	
TT3 – Networking performance and capacity continue to increase rapidly.	☐	
TT4 – the increasing failure of traditional software development methods is producing fundamentally new techniques for the execution of IT projects.	☐	
TT5 – The Internet will drive the technical standards for network computing.	☐	
TT6 – Microsoft and Intel will continue to strongly influence business computing.	☐	
TT7 – Organizations are moving towards the total digitization of all forms of corporate data and the creation of enterprise-wide data warehouses.	☐	
TT8 – "Intelligence"- oriented technologies are becoming increasingly available from commercial vendors.	☐	
TT9 – Enterprises are using new technologies to reduce administration costs and establish a unified system management approach for corporate computing.	☐	
TT10 – Unified management and governed evolution of the Enterprise Architecture will become dominant best practice even where asset ownership is federated. Federated architectures will focus on supporting common business infrastructure initiatives across semi-autonomous business units.	☐	

STATE CONTRACTS

Planned Contracts	
Existing Contracts	

CURRENT STATUS

Provide the Current Status	☐ *In Development*	☐ *Under Review*	☐ *Approved*	☐ *Rejected*

AUDIT TRAIL

Creation Date		*Date Accepted/Rejected*	
Reason for Rejection			
Last Date Reviewed		*Last Date Updated*	
Reason for Update			

Template Detail

Section I – Definition

Domain Name – The Architecture Committees (ARC and ATC) provides the Domain Name.

Description – The Architecture Committees (ARC and ATC) provides the description of the Domain in a paragraph or two that provides sufficient clarity to the reader about the Domain.

Rationale – The Architecture Committees (ARC and ATC) provides a paragraph or two containing the reason or basis for this Domain being included within the architecture.

Benefits – The Architecture Committees (ARC and ATC) provides a paragraph or bulleted statements that provide the benefits associated with the Domain.

Section II – Boundary

Boundary Limit Statement – The Boundary Limit Statement provides parameters for identifying the boundaries for the Domain. This section includes statements about what is included as well as items that are related, but excluded from the Domain. If excluded items are identified, it is beneficial to include a reference to the Domain where information can be found.

Subject Areas – Provide a listing of the Subject Areas covered within this Domain. This listing will serve as a reference index to these topics. Subject Areas are documented in detail at the Discipline level.

Section III – Associated Disciplines

Provide a list of the Disciplines that are covered within this Domain. This provides an index for these Disciplines. The detailed documentation for each Discipline listed will be completed using the Discipline Template.

Section IV – Principles

Principles – The overarching general rules that hold true across the architecture. The principles are developed and documented by the Architecture Review Committee at the most global level of the architecture. These global principles are covered in Part I - Chapter 4 of this manual.

Conflict – Verify that the development of the Domain does not conflict with the established enterprise Principles documented in MAEA Part I - Chapter 4. Check the box to indicate a conflict. A Yes/ No answer is also appropriate.

Relationship – The relationship should be documented for those Principles that apply most directly to the Domain. Principles left blank will indicate that the principle does not relate to this Domain.

Section V – Best Practices

Best Practices – Best Practices identify industry processes related to the implementation of the architecture that will assist in the maintenance and expansion of an adaptive statewide technical architecture. They are based on experience and proven results. The best practices are documented in MAEA Part I - Chapter 5, and apply to the enterprise wide concept of architecture.

Conflict – Verify that the development of the Domain does not conflict with the established enterprise Best Practices documented in MAEA Part I - Chapter 5. Check the box to indicate a conflict. A Yes/ No answer is also appropriate.

Relationship – The relationship should be documented for those Best Practices that apply most directly to the Domain. Best Practices left blank will indicate that the practice does not relate to this Domain.

Note: Best practices that are identified as specific to the Domain will be defined and documented as Compliance Components (guidelines or standards) at the Discipline level.

Section VI – Technology Trends

Technology trends within the industry have an effect on the deployment of information technology. Identifying these trends and having an awareness of their impact will allow IT decision makers to develop more informed, effective decisions.

The Architecture Committee has identified an initial set of technology trends that apply to the Enterprise Architecture. These are documented in MAEA Part I - Chapter 6.

Conflict – Verify that the development of the Domain does not conflict with the established enterprise technology trends. Check the box to indicate a conflict. A Yes/ No answer is also appropriate.

Relationship – The relationship should be documented for those technology trends that apply most directly to the Domain. Technology trends relationships left blank will indicate that the technology trend does not relate to this Domain.

Note: Technology Trends that are identified as specific to the Domain will be further defined and documented at Discipline level. This will allow for defining of the industry trends within the Discipline where they most appropriately apply.

Section VII – State Contracts

Planned Contracts – Provide a list of planned future contracts associated with this Domain.

Existing Contracts – Provide a list of existing contracts associated with this Domain.

Section VIII – Current Status

Document the status of a document, indicating whether the document is in development, under review, accepted, or rejected.

Section IX – Audit Trail

Creation Date – Provide the date the Domain was created.

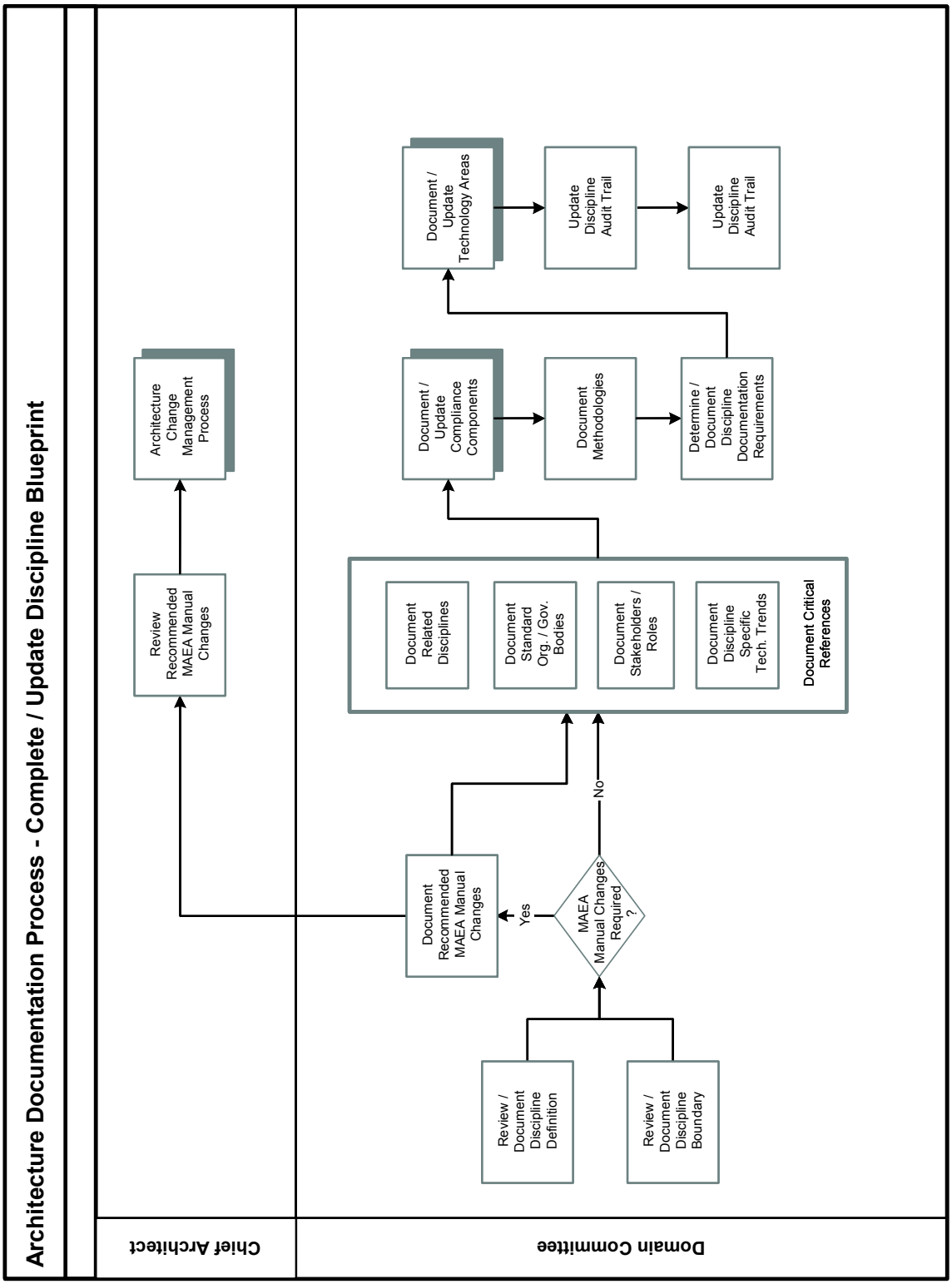
Date Accepted/Rejected – Provide the date the Domain was accepted into the architecture or rejected.

Reason for Rejection – If the Domain was rejected, document the reason for the rejection.

Last Date Reviewed – Document the most recent date the Domain was taken through the Architecture Vitality Process.

Last Date Updated – Document the most recent date that any item in the Domain template was changed.

Reason for Update – Document the reason for the update to the Domain. This information should be a detailed description of the change, for future reference.


Architecture Documentation Process - Complete / Update Discipline Blueprint
Chief Architect
Domain Committee
Review / Document Discipline Definition
Review / Document Discipline Boundary
MAEA Manual Changes Required ?
Yes
No
Document Recommended MAEA Manual Changes
Review Recommended MAEA Manual Changes
Architecture Change Management Process
Document Related Disciplines
Document Standard Org. / Gov. Bodies
Document Stakeholders / Roles
Document Discipline Specific Tech. Trends
Document Critical References
Document / Update Compliance Components
Document Methodologies
Determine / Document Discipline Documentation Requirements
Document / Update Technology Areas
Update Discipline Audit Trail
Update Discipline Audit Trail

Complete / Update Discipline Blueprint

Using the Discipline Template as a guide, the Discipline level of the Architecture Blueprint will be completed/updated. The following process steps must be followed to aid in this documentation:

Review / Document Discipline Definition, and Review / Document Discipline Boundary – The Domain Committee will have the responsibility of reviewing the Discipline definition and Discipline boundary provided by the ARC. .

Document Recommended MAEA Manual Changes, Review Recommended MAEA Manual Changes and Architecture Change Management Process – Any changes that need to be done to the definition, boundary, or subject areas prior to proceeding with the Discipline documentation should be documented and submitted to the Chief Architect.

These types of changes can affect more than just the Domain committee requesting the modification. The Chief Architect will review the recommended changes and submit them to the Architecture Change Management Process for inclusion or exclusion in the MAEA Manual.

Remaining Discipline documentation can continue while the recommended changes affecting the MAEA Manual are forwarded through the Architecture Change Management Process.

Document Critical References – Critical References can aid in identifying the Technology Areas, Product Components, and/or Compliance Components. The references that are specific for the Discipline include:

- Documenting Related Disciplines
- Identify the various Standard Organizations and Government Bodies
- Identification of the Stakeholders / Roles
- Discipline Specific Documentation of Technology Trends

Document / Update Compliance Components – Compliances that are more Discipline related should be documented at this level. Each Domain Committee should evaluate and select Compliance Components that apply to the Discipline. These would include:

- Guidelines that are general statements of direction or define desired future state for this Discipline. These will not be mandated.
- Standards from any generally accepted standards organization that is appropriate for the Discipline. More than one standard may exist. Variance must be sought not to follow one of the standards that exist.
- Legislated required by law and only a change in the mandate can allow variances to be granted.

Document Methodologies – Methodologies followed while developing or supporting this Discipline should be documented. This is another place to verify that the

deliverables of the methodology do not conflict with the components of the architecture. Implementation of the selected Technology Areas should be aided by the methodology deliverables. Examples of Methodologies include RAD (Rapid Application Development, Spiral Project Management), and JAD (Joint Application Development).

Determine / Document Discipline Documentation Requirements – Documentation requirements for the Discipline must be documented, assuring that the quality and level of the documentation intended by the Domain Committee is maintained. As the architecture continues to mature, various subject matter experts will work on the Domain Committee, and the knowledge of why something was done a certain way may not be obvious to those joining. The Domain Committee can express their expectations for how the Discipline is to be maintained in this area.

The discipline documentation requirements also communicate to the ARC and other Domain Committees the reason this Domain Committee chose to document to a specific level of detail. Assuring the quality and level of documentation intended by the Domain Committee is essential

Document / Update Technology Areas – The process for deriving and capturing all the remaining levels of the architecture begins here. This level aids in defining and finding the various products and compliances under a technology area. The process steps will be covered in detail in Document / Update Technology Areas sub-process.

Set Current Status – Because so many documents move through the documentation process at one time, it is important to understand where a given document is in the process. Statuses include:

- In Development – Indicates the specific document is being defined.
- Under Review – Indicates the document is being reviewed.
- Accepted – Indicates the ARC has accepted the document into the architecture.
- Rejected – The document was rejected by any governance group during the various reviews. The reason for rejection must be documented in the audit trail information.

Update Discipline Audit Trail – Audit trails for the information provided in the template must be maintained. During this initial development of the Discipline only the creation, accepted/rejected, and most recent date updated information must be maintained.

Discipline Template

Template Overview

Disciplines are the logical functional areas within a Domain. Each Domain will contain one or more Disciplines. The Discipline template will be used to ensure consistent documentation of each Discipline identified by the Architecture Review Committee. The detail of the architecture begins to form at the Discipline level.

The Architecture Committees (ARC and ATC) has been involved in a high-level review process to define and document the initial set of Disciplines and associate them with the appropriate Domain. The development of Disciplines within each Domain is the responsibility of the Domain Committee. This process will evolve and change as information is gathered and documented.

It is anticipated that Domain Committees may uncover additional information that should be included as part of the architecture. The subcommittees and other architecture stakeholders are encouraged to provide feedback to the Chief Architect whenever it is apparent that the feedback will enhance the architecture. The format for submitting feedback or suggestions is currently under development, in the form called Recommended MAEA Manual Changes.

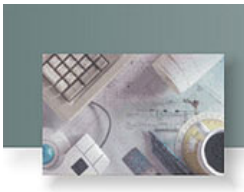
Template Sections

The Discipline Template will include the following sections:

- Definition
- Boundary
- Associated Domain
- Critical References
- Associated Compliance Components
- Methodologies
- Discipline Documentation Requirements
- Associated Technology Areas
- Current Status
- Audit Trail

Template Form Sample

The Discipline Template provides a vehicle for documenting the Discipline details in an electronic format. The visual representation of the Discipline Template, provided here, is followed by the detailed description of its contents. The Domain Committee members may access ***MAEA Discipline Template.dot*** for electronic entry of the Discipline detail.



Discipline Template

DEFINITION	
Name	
Description	
Rationale	
Benefits	

BOUNDARY	
Boundary Limit Statement	
Subject Areas with description	

ASSOCIATED DOMAIN	
List the Domain Name	

CRITICAL REFERENCES

Related Domains/Disciplines

☐ *Interface – Branding*	☐ *Integration – Functional Integration*	☐ *Systems Mgt – Business Continuity*
☐ *Interface – Access*	☐ *Integration – Middleware*	☐ *Security – Enterprise Security*
☐ *Interface – Accessibility*	☐ *Application – Application Engineering*	☐ *Security – Network Security*
☐ *Information – Knowledge Mgt*	☐ *Application – Electronic Collaboration*	☐ *Security – Host Security*
☐ *Information – Data Mgt*	☐ *Systems Mgt – Asset Mgt*	☐ *Privacy – Profiling*
☐ *Information- GIS*	☐ *Systems Mgt – Change Mgt*	☐ *Privacy – Personification*
☐ *Infrastructure - Network*	☐ *Systems Mgt – Console/Event Mgt*	☐ *Privacy – Privacy*
☐ *Infrastructure - Platform*	☐ *Systems Mgt – Help Desk/Problem Mgt*	

Standard Organizations/Government Bodies	
List Standard Organizations	
List Government Bodies	

Stakeholders/Roles	
List Stakeholders	
List Roles	

Discipline-specific Technology Trends	
List Discipline-specific Technology Trends	
Technology Trend Source	

ASSOCIATED COMPLIANCE COMPONENTS			
List Discipline-level Compliance Components			
METHODOLOGIES			
List methodologies followed.			
DISCIPLINE DOCUMENTATION REQUIREMENTS			
Provide documentation requirements for this Discipline.			
ASSOCIATED TECHNOLOGY AREAS			
List the Technology Areas associated with this Discipline.			
CURRENT STATUS			
Provide the Current Status	☐ *In Development* ☐ *Under Review* ☐ *Approved* ☐ *Rejected*		
AUDIT TRAIL			
Creation Date		*Date Accepted/Rejected*	
Reason for Rejection			
Last Date Reviewed		*Last Date Updated*	
Reason for Update			

Template Detail

Section I – Definition

Name – The Architecture Committees (ARC and ATC) provides the Discipline name.

Description – The Architecture Committees (ARC and ATC) provides the description of the Discipline in a paragraph or two that provides sufficient clarity to the reader about the Discipline.

Rationale – The Architecture Committees (ARC and ATC) provides a paragraph or two containing the reason or basis for this Discipline being included within the architecture.

Benefits – The Architecture Committees (ARC and ATC) provides a paragraph or bulleted statements that provide the benefits associated with the Discipline.

Section II – Boundary

Boundary Limit Statement – The Boundary Limit Statement provides parameters for identifying the boundaries for the Discipline. This section includes statements about what is included as well as items that are related, but excluded from the Discipline. If excluded items are identified, it is beneficial to include a reference to the Domain and Discipline where information can be found.

Subject Areas – The Architecture Committees (ARC and ATC) will provide a list of the subject areas relevant to this Discipline. They will provide general descriptions of each subject area. Subject areas provide guidance to the Domain committees on the Discipline Boundary.

Section III – Associated Domain

Provide the name of the Domain with which this Discipline is associated. This provides the appropriate mapping between Domain and Disciplines.

Section IV – Critical References

Related Domains/Disciplines – Provide a list of the Domains and underlying Disciplines that will affect this Discipline, or will be affected by changes within this Discipline. These references provide coordination points for critical decisions.

Standard Organization / Government Bodies – Provide a list of the various standard organizations and/or Government Bodies that affect this Discipline. Provide URLs for reference whenever possible.

Stakeholders – Provide a list of Stakeholders for this Discipline. Stakeholders are those who are affected by or will have an effect on the Discipline. If stakeholder title is not known, provide a description of the role the person or group performs in the Roles section.

Roles – This section provides a place to provide the Roles and/or responsibilities for this Discipline. This is especially helpful when a title for the stakeholder is not known. Roles ensure the accountability for all IT components, ensure IT efforts support the needs of the business and increase quality of IT solutions within the Discipline.

Discipline-specific Technology Trends – Add any Discipline-specific Technology Trends. Technology trends within the industry have an effect on the deployment of information technology. IT decision makers will develop more informed, effective decisions if they are aware of the impact of the Technology Trends.

Some key questions that should be considered when identifying the Technology Trends include:

- What trends and events will drive new business investment in IT?
- What technology advances or changes will impact IT deployment decisions?
- How can the State exploit IT while facing a complex and volatile environment?
- Technology Trend Source – Provide the source of the Technology Trend for reference/historical purposes. This section can include reference to organizations such as Gartner Group, etc. or can be the name of the person who proposed the trend. URLs may also be included if applicable.

Section V – Associated Compliance Components

Provide a list of Compliance Components that are specific to the Discipline level. The detailed documentation for each component listed will be completed using the Compliance Component Template.

Section VI – Methodologies

Provide a list of methodologies followed in developing or supporting this Discipline as appropriate.

Section VII – Discipline Documentation Requirements

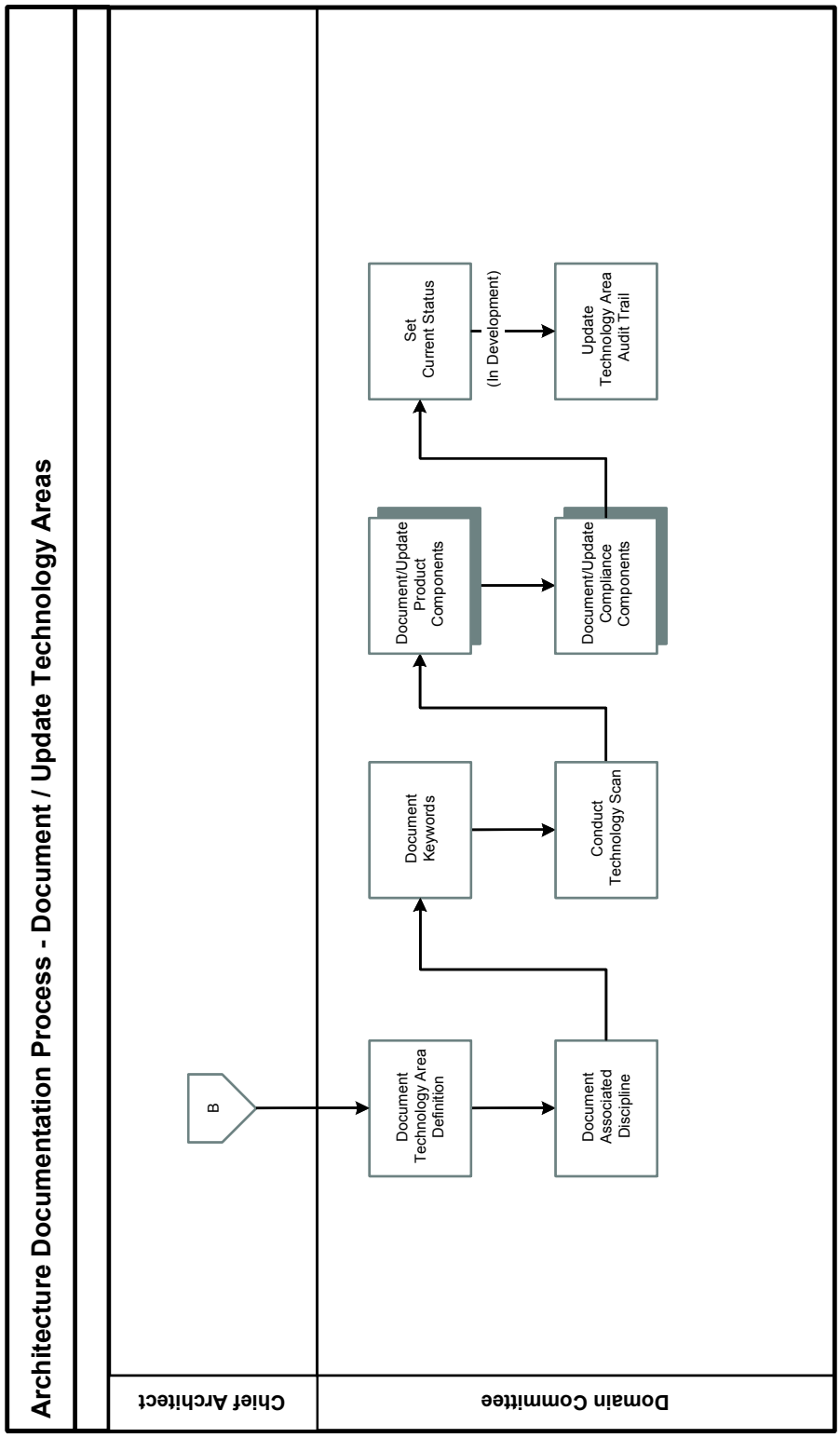
The Domain Committee should use this section to document the quality assurance criteria for the Discipline and express their expectations for how the Discipline is to be maintained.

Section VIII – Associated Technology Areas

Provide a list of the Technology Areas that are covered within this Discipline. This provides an index for these Technology Areas. The detailed documentation for each Technology Area listed will be completed using the Technology Area Template.

Section IX – Current Status

Document the status of a document, indicating whether the document is in development, under review, accepted, or rejected.


Architecture Documentation Process - Document / Update Technology Areas
Chief Architect
Domain Committee
B
Document Technology Area Definition
Document Associated Discipline
Document Keywords
Conduct Technology Scan
Document/Update Product Components
Document/Update Compliance Components
Set Current Status
(In Development)
Update Technology Area Audit Trail

Section X – Audit Trail

Creation Date – Provide the date the Discipline was created.

Date Accepted/Rejected – Provide the date the Discipline was accepted into the architecture or rejected.

Reason for Rejection – If the Discipline was rejected, document the reason for the rejection.

Last Date Reviewed – Document the most recent date the Discipline was taken through the Architecture Vitality Process.

Last Date Updated – Document the most recent date that any item in the Discipline template was changed.

Reason for Update – Document the reason for the update to the Discipline.

Document / Update Technology Areas

The Technology Area level of the Architecture Blueprint should be completed/updated using the Technology Area Template as a guide. The following process steps must be followed to aid in this documentation:

Document Technology Area Definition – Review or document the Technology Areas definition and rationale.

Document Associated Discipline – Enter the name of the Discipline associated with this Technology Area.

Document Keywords – To aid in finding various Technology Areas documented in the Architecture Blueprint, keywords / nomenclature commonly associated with the Technology Area should be documented.

Conduct Technology Scan – At this level a technology scan of the enterprise should be conducted to determine the existing or proposed Products and Compliance Components used throughout the state that relate to this technology.

Document/Update Product Components and Document/Update Compliance Components – After the technology scan is complete the Product and Compliance Components can be documented and assigned their classification within the architecture.

Set Current Status – Because so many documents move through the documentation process at one time, it is important to understand where a given document is in the process. Statuses include:

- In Development – Indicates the specific document is being defined.
- Under Review – Indicates the document is being reviewed.
- Accepted – Indicates the ARC has accepted the document into the architecture.

- Rejected – The document was rejected by any governance group during the various reviews. The reason for rejection must be documented in the audit trail information.

Update Technology Area Audit Trail – Audit trails for the information provided in the template must be maintained. During this initial development of the Domain only the creation, accepted/rejected, and most recent date updated information must be maintained.

Technology Area Template

Template Overview

Technology Areas are those technical items or topics that support the functionality of the architecture. This template is used to identify and document the Technology Areas that support each Discipline.

A majority of the Domain Committees work will focus on the technology, product, and Compliance Components. The desirable and undesirable aspects of the Technology Areas, captured in the Component Review, will indicate where this type of technical functionality can best be applied as compared to another. One example is making the decision for use of relational databases compared to flat file systems.

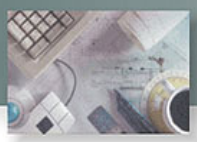
Template Sections

The Technology Area Template will include the following sections:

- Definition
- Associated Discipline
- Keywords
- Associated Compliance Components
- Associated Product Components
- Current Status
- Audit Trail

Template Form Sample

The Technology Area Template provides a vehicle for documenting the Technology Area details in an electronic format. The visual representation of the Technology Area Template, provided here, is followed by the detailed description of its contents. The Domain Committee members may access ***MAEA Technology Area Template.dot*** for electronic entry of the Technology Area detail.



Technology Area Template

DEFINITION			
Name			
Description			
Rationale			
Benefits			
ASSOCIATED DISCIPLINE			
List the Discipline Name			
KEYWORDS			
List Keywords			
ASSOCIATED COMPLIANCE COMPONENTS			
List the Compliance Component Names			
ASSOCIATED PRODUCT COMPONENTS			
List the Product Component Names			
CURRENT STATUS			
Provide the Current Status	☐ *In Development* ☐ *Under Review* ☐ *Approved* ☐ *Rejected*		
AUDIT TRAIL			
Creation Date		*Date Accepted / Rejected*	
Reason for Rejection			
Last Date Reviewed		*Last Date Updated*	
Reason for Update			

Template Detail

Section I – Definition

Name – Provide the name for the Technology Area.

Description – Document the description of the Technology Area in a paragraph or two that provides sufficient clarity to the reader about the component.

Rationale – Document a paragraph or two containing the reason or basis for this Technology Area being included within the architecture.

Benefits – Document a paragraph or bulleted statements that provide the benefits associated with the Technology Area.

Section II – Associated Discipline

Provide the name of the Discipline with which this Technology Area is associated. This provides the appropriate mapping between Technology Area and Discipline.

Section III – Keywords

List any keywords that can be used to assist in searching the Architecture Blueprint for these Technology Areas. This information will be helpful for anyone that be looking for information on similar technologies.

Section IV – Associated Compliance Components

List the Compliance Components associated with this Technology Area. The detailed documentation for each component listed will be completed using the Compliance Component Template.

Section V – Associated Product Components

List the Product Components associated with this Technology Area. The detailed documentation for each component listed will be completed using the Product Component Template.

Section VI – Current Status

Document the status of a document, indicating whether the document is in development, under review, accepted, or rejected.

Section VII – Audit Trail

Creation Data – Provide the date the Technology Area was created.

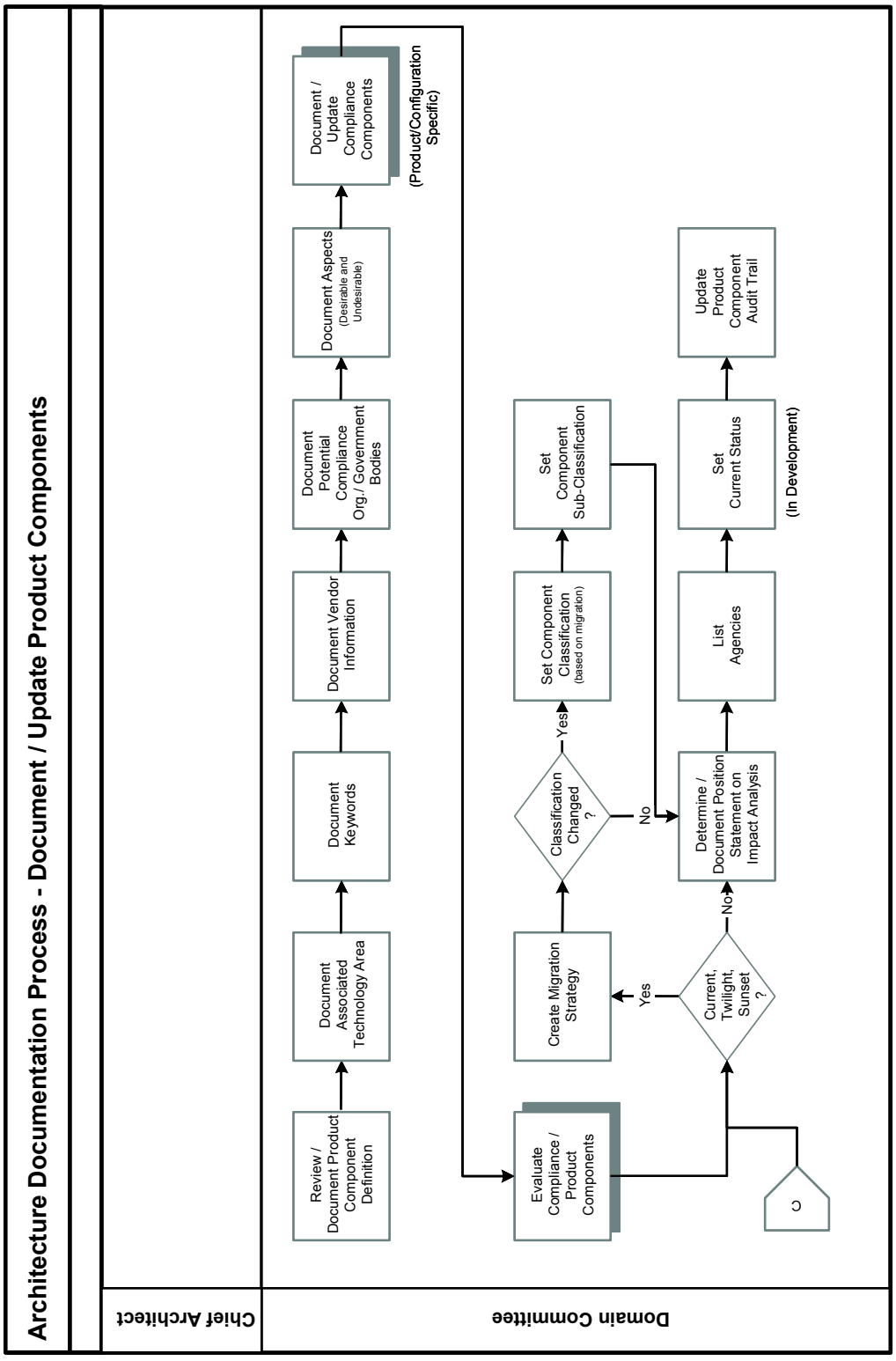
Date Accepted/Rejected – Provide the date the Technology Area was accepted into the architecture or rejected.

Reason for Rejection – If the Technology Area was rejected, document the reason for the rejection.

Last Date Reviewed – Document the most recent date the Technology Area was taken through the Architecture Vitality Process.

Last Date Updated – Document the most recent date that any item in the Technology Area template was changed.

Reason for Update – Document the reason for the update to the Technology Area.


Architecture Documentation Process - Document / Update Product Components
Chief Architect
Domain Committee
Review / Document Product Component Definition
Document Associated Technology Area
Document Keywords
Document Vendor Information
Document Potential Compliance Org./ Government Bodies
Document Aspects (Desirable and Undesirable)
Document / Update Compliance Components
(Product/Configuration Specific)
Evaluate Compliance / Product Components
Create Migration Strategy
Yes
Classification Changed ?
Yes
Set Component Classification (based on migration)
Set Component Sub-Classification
No
Current, Twilight, Sunset ?
No
Determine / Document Position Statement on Impact Analysis
List Agencies
Set Current Status
(In Development)
Update Product Component Audit Trail
C

Document / Update Product Components

The Product Components documented in this sub-process and the Compliance Components documented in the Document Compliance Component sub-process become the essence of the architecture for the Discipline. They specifically identify what products, compliances, and implementation recommendations will be used for implementation of the Discipline.

The Product Component level of the Architecture Blueprint should be completed/updated using the Product Component Template as a guide. The following process steps must be followed to aid in this documentation:

Review/Document Product Component Definition – Review or document the product component's definition and rationale.

Document Associated Technology Area – Enter the name of the Technology Area associated with this product component.

Document Keywords – To aid in finding various products documented in the Architecture Blueprint, keywords / nomenclature commonly associated with the product will be documented.

Document Vendor Information – Vendor information about the vendor providing the product will be documented, including the name, contact information, and Web site for the vendor. In addition, any evaluation conducted on the vendor should also be documented to aid in future evaluations conducted on the vendor.

Document Potential Compliance Organizations / Government Bodies – To assist in the identification of potential Compliance Components for the product, a list of Standard Organizations and/or Government Bodies associated with the product will be documented. This list should include:

- Name
- Contact information
- Web site

Document Aspects – Desirable and undesirable aspects of the product should be documented. If the undesirable aspects have been discussed with the vendor, a synopsis of that discussion would be beneficial to show the likelihood that the vendor will be addressing the aspect.

Document / Update Compliance Components – Compliances that are more product-related must be documented at this level. These might include:

- Guidelines – general statements of direction or definition of desired future states for the product. These will not be mandated.

- Standards – product releases/versions used within the enterprise or being proposed. More than one standard may exist. A variance must be granted not to follow one of the existing standards.
- Legislation – items required by law. Only a change in the legislation can allow variances to be granted.

Evaluate Compliance / Product Components – Once the Product is documented, an evaluation of the product to determine its classification must occur. This will be discussed in detail in the Evaluate Compliance / Product Components sub-process.

Create Migration Strategy – For a product classified as current, twilight or sunset, a migration strategy must be formulated when the product migrates from:

- "Emerging" moving to the classification of "Current"
- "Current" moving to either "Twilight" or "Sunset"

Migration strategies will identify:

- Impacts on existing components
- Considerations for conversion
- Recommendations for:
  - New development
  - Modifications to existing components (corrections & enhancements)
  - Possibilities for user-base expansion (reuse)

Set Component Classification – Based on the Migration Strategies a component classification can be changed. This can occur in the following situations:

- A product that is determined through evaluation to be twilighted and replaced with another product. When evaluating the migration strategies, it is determined that to migrate from one product to another is too costly or too risky to the State, then the existing product would remain classified as "Current".
- A product that is determined through evaluation to becoming current from emerging. When migration strategies are reviewed it is determined that the product should still remain emerging until more information is available.

These are just two examples of how reviewing migration strategies could cause a component classification to be changed.

Determine / Document Position Statement on Impact Analysis – An impact analysis must be conducted to determine the impact the classification of the product will have on the existing architecture. Examples of impacts can include:

- Is a product classified as "Current" moving to "Twilight" going to cause a software component to go through a release update that may take months to accomplish?
- Support levels may be impacted when choosing not to move a product from "Current" to "Twilight" when a vendor has chosen to no longer support the product.

List Agencies – List all known agencies, departments, or other organizational structures in the state that are currently using this product. Add any important information such as how long the agency has been utilizing the product and criticality to the agency's business functions.

Set Current Status – Because so many documents move through the documentation process at one time, it is important to understand where a given document is in the process. Statuses include:

- In Development – Indicates the specific document is being defined.
- Under Review – Indicates the document is being reviewed.
- Accepted – Indicates the ARC has accepted the document into the architecture.
- Rejected – The document was rejected by any governance group during the various reviews. The reason for rejection must be documented in the audit trail information.

Update Product Component Audit Trail – Audit trails for the information provided in the template must be maintained. During this initial development of the Domain only the creation, accepted/rejected, and most recent date updated information must be maintained.

Product Component Template

Template Overview

Product Components include the protocols, products (families and/or versions) and configurations that are specific to a Technology Area. The Domain Committee will evaluate each Product Component identified to determine its applicability.
Each Product Component reviewed, whether accepted or rejected, will be documented using this Product Component Template.

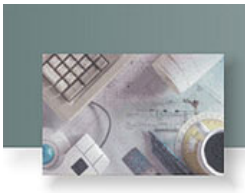
Template Sections

The Product Component Template will include the following sections:

- Definition
- Associated Technology Area
- Keywords
- Vendor Information
- Standards Organization / Government Body
- Component Review
- Associated Compliance Components
- Component Classification
- Component Sub-Classification
- Rationale for Component Classification
- Migration Strategy
- Impact Position Statement
- Agencies
- Current Status
- Audit Trail

Template Form Sample

The Product Component Template provides a vehicle for documenting the Product Component details in an electronic format. The visual representation of the Product Component Template, provided here, is followed by the detailed description of its contents. The Domain Committee members may access ***MAEA Product Component Template.dot*** for electronic entry of the Product Component detail.



Product Component Template

DEFINITION			
Name			
Description			
Rationale			
Benefits			
ASSOCIATED TECHNOLOGY AREA			
List the name of the associated Technology Area			
KEYWORDS			
List all Keywords			
VENDOR INFORMATION			
Vendor Name		*Website*	
Contact Information			
POTENTIAL COMPLIANCEORGANIZATIONS/GOVERNMENT BODIES			
Standard Organizations			
Name		*Website*	
Contact Information			
Government Bodies			
Name		*Website*	
Contact Information			
COMPONENT REVIEW			
List Desirable aspects			
List Undesirable aspects			
ASSOCIATED COMPLIANCE COMPONENTS			
Product			
List the Product-specific Compliance Component Names			
Configuration Links			
List the Configuration-specific Compliance Component Names			

COMPONENT CLASSIFICATION				
Provide the Classification	☐ *Emerging*	☐ *Current*	☐ *Twilight*	☐ *Sunset*

COMPONENT SUB-CLASSIFICATION		
Sub-Classification	**Date**	**Additional Sub-Classification Information**
☐ *Technology Watch*		
☐ *Variance*		
☐ *Conditional Use*		

RATIONALE FOR COMPONENT CLASSIFICATION	
Document the Rationale for Component Classification	

MIGRATION STRATEGY	
Document the Migration Strategy	

IMPACT POSITION STATEMENT	
Document the Position Statement on Impact	

AGENCIES	
List the Agencies Currently Utilizing this Product	

CURRENT STATUS				
Provide the Current Status	☐ *In Development*	☐ *Under Review*	☐ *Approved*	☐ *Rejected*

AUDIT TRAIL			
Creation Date		*Date Accepted / Rejected*	
Reason for Rejection			
Last Date Reviewed		*Last Date Updated*	
Reason for Update			

Template Detail

Section I – Definition

Name – Provide the name for the Product Component.

Description – Document the description of the Product Component in a paragraph or two that provides sufficient clarity to the reader about the component.

Rationale – Document a paragraph or two containing the reason or basis for this Product Component being included within the architecture.

Benefits – Document a paragraph or bulleted statements that provide the benefits associated with the Product Component.

Section II – Associated Technology Area

Provide the name of the Technology Area with which this Product Component is associated. This will ensure the appropriate mapping of Product Component to Technology Area.

Section III – Keywords

List any keywords that can be used to assist in searching the Architecture Blueprint for these Product Components. This information will be helpful for anyone that be looking for information on similar technologies.

Section IV – Vendor Information

Provide the following vendor information for the vendor that supplies and or supports the Product Component being documented.

- Vendor Name
- Contact Information, such as phone number, address, and email address
- Company Web site, URL, and associated links

Section V – Standards Organization / Government Body

Standards Organizations – List all Standards Organizations that supply standards associated with this Product Component. Provide contact information for each organization, as well as URLs, if available.

Government Bodies – List all Government Bodies that provide policies and/or mandates associated with this Product Component. Provide contact information for each Government Body, as well as URLs, if available.

These are research references only, and are used in identifying items that may need to be escalated to Compliance Components.

All standards are addressed using the Compliance Component template.

Section VI – Component Review

Desirable Aspects – Document the desirable aspects of this Product Component.

Undesirable Aspects – Document the undesirable aspects of this Product Component.

This information is used to justify recommendations for future use of the component.

Section VII –Associated Compliance Components

Product – List the product-specific Compliance Components associated with this product. The detailed documentation for each component listed will be completed using the Compliance Component Template.

Configuration Links – List the configuration-specific Compliance Components associated with this product. The detailed documentation for each component listed will be completed using the Compliance Component Template.

Section VIII – Component Classification

Component Classification – Provide the classification for this Product Component. (The process for determination is covered later in this chapter under Process.)

Classifications include:

- Emerging – Indicates new technology, which has the potential to become current.
- Current – Indicates recommended technology. Technology meets the requirements of the architecture.
- Twilight – Items that do not conform the Principles, Best Practices and Technology Trends
- Sunset – Items that do not conform to the Principles, Best Practices and Technology Trends, and a discontinuation date has been set.
- Sunset Date – Document the date for discontinuation of the Product Component.

Section IX – Component Sub-Classification

There are three Sub-Classifications that can be denoted for a Product.

- Technology Watch – Include this documentation if this product should be classified as Twilight or Sunset, but has no replacement product identified.
- Variance – Include this documentation if this product was accepted into the Architecture Blueprint based on a variance being granted.
- Conditional Use Restriction – Document any specialized circumstances and/or requirements associated with the use of this Product Component.

For each of these Sub-Classifications the following information is gathered:

- Date – This is the date that the product was placed in this sub-classification
- Additional Information – This allows for additional information about the sub-classification to be captured including:
  - Information about the evaluation that placed the product into Technology Watch
  - Information including the group that received the variance.
  - Under what circumstances the conditional use is valid.

Section X- Rationale for Component Classification

Provide a rationale statement for the chosen classification based on the on review of:

- Domain Architecture Conformance
- Business Functionality Fit
- Technical Fit
- Operational Fit

Section XI – Migration Strategy

Document Migration Strategy for:

- Existing Product Components, classified as "Emerging" moving to the classification of "Current"
- Existing Product Components, classified as "Current" moving to either "Twilight" or "Sunset"

These strategies should identify the following items, as applicable:

- Existing user base and technical staff
- Training for existing user base
- Training for existing technical staff
- Impacts on existing Technology Areas
- Considerations for conversion
- Recommendations for the Technology Area in:
  - New development
  - Modifications (corrections & enhancements)
  - Possibilities for user-base expansion (reuse)

Section XII – Impact Position Statement

Provide a position statement on the impact of this product on the State. Consider the following items when developing the impact position statement:

- The impact on the overall Architecture
- The impact on the Physical technical environment
- The impact on the Business community

Section XIII – Agencies

List all known agencies, departments, or other organizational structures in the state that are currently using this product

Section XIV – Current Product Component Status

Document the status of Product Component, indicating whether the component is in development, under review, accepted, or rejected.

Section XV – Audit Trail

Creation Data – Provide the date the Product Component was created.

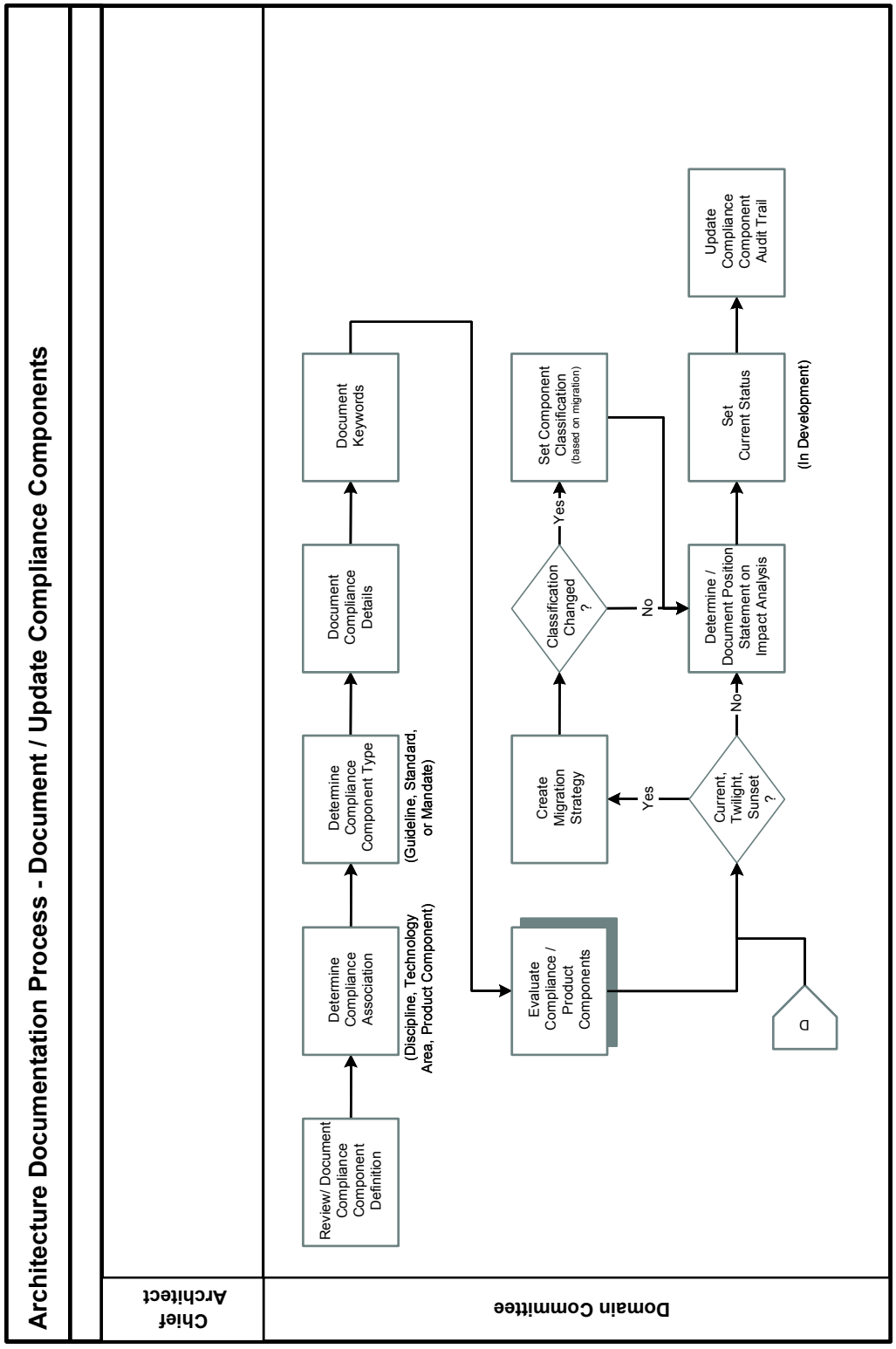
Date Accepted/Rejected – Provide the date the Product Component was accepted into the architecture or rejected.

Reason for Rejection – If the Product Component was rejected, document the reason for the rejection.

Last Date Reviewed – Document the most recent date the Product Component was taken through the Architecture Vitality Process.

Last Date Updated – Document the most recent date that any item in the Product Component template was changed.

Reason for Update – Document the reason for the update to the Product Component.


Architecture Documentation Process - Document / Update Compliance Components
Chief Architect
Domain Committee
Review/ Document Compliance Component Definition
Determine Compliance Association
(Discipline, Technology Area, Product Component)
Determine Compliance Component Type
(Guideline, Standard, or Mandate)
Document Compliance Details
Document Keywords
Evaluate Compliance / Product Components
Create Migration Strategy
Yes
Classification Changed ?
Yes
Set Component Classification
(based on migration)
No
Current, Twilight, Sunset ?
No
Determine / Document Position Statement on Impact Analysis
Set Current Status
(In Development)
Update Compliance Component Audit Trail
D

Document / Update Compliance Components

The Compliance Component level of the Architecture Blueprint should be completed/updated using the Compliance Component Template as a guide. The following process steps should be followed to aid in this documentation:

Review / Document Compliance Component Definition – Review the compliance component's definition, rationale, and benefits. Rationale and Benefits should only be filled in where it will aid in the understanding of the compliance component being documented.

Determine Compliance Association – Compliances must be defined and associated with the correct levels in the architecture (Discipline, Technology Area, and/or Product Component).

Determine Compliance Component Type – There are three types of Compliances:

- Guidelines – general statements of direction or desired future state for the level of the Architecture Blueprint listed. These will not be mandated.
- Standards – indicate very specific protocol, product or version statements. More than one standard may exist. Variance must be sought to deviate from an existing standard.
- Mandated – required by law. Only a change in the legislation will allow for variances.

The Compliance Component Sub-type is available if further clarification of the Component type is needed.

Document Compliance Details – The Compliance Component details should be articulated. These include:

- Compliance Statement
- Compliance Referenced Source
- Standards Organization / Government Body
- Actual Statute or Standards Document Version

Document Keywords – Provide keywords or nomenclatures to aid in locating the Compliance Component within the Architecture Blueprint.

Evaluate Compliance / Product Components – Once the Compliance Component is documented, an evaluation of the product must be done to determine its classification. This classification process will be discussed in detail in the Evaluate Compliance / Product Components sub-process.

Create Migration Strategy – For a Compliance Component classified as current, twilight, or sunset a migration strategy must be formulated. This must be done for compliances migrating from:

- Existing Compliance Components currently classified as "Emerging" that are moving to "Current".
- Existing Compliance Components currently classified as "Current" that are moving to either "Twilight" or "Sunset".

These strategies will identify:

- Impacts on existing components
- Considerations for conversion
- Recommendations for:
- New development
- Modifications to existing components (corrections & enhancements)
- Potential for user-base expansion (reuse)

Set Component Classification – Based on the Migration Strategies a component classification can be changed. This can occur in the following situations:

- A product that is determined through evaluation to be twilighted and replaced with another product. When evaluating the migration strategies it is determined that to migrate from one product to another is to costly or to risky to the State then the existing product would remain classified as "Current".
- A product that is determined through evaluation to becoming current from emerging. When migration strategies are reviewed, it is determined that the product should still remain emerging until more information is available.

These are just two examples of how reviewing migration strategies could cause a component classification to be changed.

Determine / Document Position Statement on Impact Analysis – An impact analysis must be conducted to determine the impact the most recently determined classification of this Compliance Component will have on the existing architecture. The analysis must be documented in a Position Statement on Impact Analysis.

Set Current Status – Because so many documents move through the documentation process at one time, it is important to understand where a given document is in the process. Statuses include:

- In Development – Indicates the specific document is being defined.
- Under Review – Indicates the document is being reviewed.
- Accepted – Indicates the ARC has accepted the document into the architecture.
- Rejected – The document was rejected by any governance group during the various reviews. The reason for rejection must be documented in the audit trail information.

Update Compliance Component Audit Trail – Audit trails for the information provided in the template must be maintained. During the initial development of the Domain only the creation, accepted/rejected, and most recent date updated information must be maintained.

Compliance Component Template

Template Overview

There are three different types of Compliance Components:

- Guidelines – Indicate general statements of direction or definitions of desired future state. Guidelines are highly recommended, but they are not mandated.
- Standards – Mandated statements. A variance must be sought not to follow. (More than one standard can exist to allow flexibility in the architecture.)
- Mandated – Compliance criteria legislated that can be changed only by changing the law. There are numerous types of legislation including, but not limited to: policy, executive order, code of state, federal regulation, or statute.

Compliance Components are the guidelines, standards and/or legislative mandates associated with a Discipline, Technology Area, and/or Product Component, as appropriate.

Compliance components (guidelines, standards and mandates) are typically documented at the Discipline level, and provide the basis for making important decisions about new products, protocols, configurations, etc. However, Compliance Components may also be documented at the Technology Area or Product Component level, using the same template for evaluation, classification and documentation of the Compliance Component.

The template for Compliance Components, as well as the process for evaluation and classification, is similar to that for Product Components. The separation is necessary for clarity and because the Compliance Components can be documented at the three levels: Discipline, Technology Area and Product Component level.

Template Sections

The Compliance Template will include the following sections:

- Definition
- Associated Architecture Level
- Compliance Component Type
- Compliance Detail
- Keywords
- Component Classification
- Rationale for Component Classification
- Conditional Use Restrictions
- Migration Strategy
- Impact Position Statement
- Current Status
- Audit Trail

Template Form Sample

The Compliance Component Template provides a vehicle for documenting the Compliance Component details in an electronic format. The visual representation of the Compliance Component Template, provided here, is followed by the detailed description of its contents. The Domain Committee members may access ***MAEA Compliance Component Template.dot*** for electronic entry of the Compliance Component detail.

Compliance Component Template

DEFINITION			
Name			
Description			
Rationale			
Benefits			
ASSOCIATED ARCHITECTURE LEVEL			
List the Discipline Name			
List the Technology Area Name			
List the Product Component Name			
COMPLIANCE COMPONENT TYPE			
Document the Compliance Component Type			
Component Sub-type			
COMPLIANCE DETAIL			
State the Guideline, Standard or Legislation			
Document Source Reference #			
Standard Organization			
Name		*Website*	
Contact Information			
Government Body			
Name		*Website*	
Contact Information			
KEYWORDS			
List all Keywords			
COMPONENT CLASSIFICATION			
Provide the Classification	☐ *Emerging*	☐ *Current*	☐ *Twilight* ☐ *Sunset*
RATIONALE FOR COMPONENT CLASSIFICATION			
Document the Rationale for Component Classification			

CONDITIONAL USE RESTRICTIONS			
Document the Conditional Use Restrictions			
MIGRATION STRATEGY			
Document the Migration Strategy			
IMPACT POSITION STATEMENT			
Document the Position Statement on Impact			
CURRENT STATUS			
Provide the Current Status	☐ *In Development* ☐ *Under Review* ☐ *Approved* ☐ *Rejected*		
AUDIT TRAIL			
Creation Date		*Date Accepted / Rejected*	
Reason for Rejection			
Last Date Reviewed		*Last Date Updated*	
Reason for Update			

Template Detail

Section I – Definition

Name – Provide the name for the Compliance Component.

Description – Document the description of the Compliance Component in a paragraph or two that provides sufficient clarity to the reader about the component.

Rationale – Document a paragraph or two containing the reason or basis for this Compliance Component being included within the architecture.

Benefits – Document a paragraph or bulleted statements that provide the benefits associated with the Compliance Component.

Section II – Associated Architecture Level

Discipline – Provide the name of the *Discipline* with which this Compliance Component is associated. This will ensure the appropriate mapping of Compliance Component to Discipline.

Technology Area – Provide the name of the *Technology Area* with which this Compliance Component is associated. This will ensure the appropriate mapping of Compliance Component to Technology Area.

Product Component – Provide the name of the *Product Component* with which this Compliance Component is associated. This will ensure the appropriate mapping of Compliance Component to Product Component.

Section III – Compliance Component Type

Component Type – Denote whether the Compliance Component being considered and/or documented is a guideline, standard or legislated.

Component Sub-type – If the component is mandated, provide the sub-type such as policy, executive order, code of state, federal regulation, or statute. For guidelines of standards, this section can be used to provide a sub-type such as product or product configuration. Department-level documentation can also be included here.

Section IV – Compliance Detail

Statement – Provide the compliance statement.

Reference – Provide source reference for the compliance statement. This will include any reference numbers used for standards and mandates. URLs to web page that contains the full standard or mandate would also be useful information,

Standards Organization – List the Standards Organization that supplies the standard. Provide contact information for each organization, as well as URLs, if available. Note that the compliance could be an Agency/Department standard.

Government Body – List the Government Body that provides the mandate associated with this Compliance Component. Provide contact information for the Government Body, as well as URLs, if available.

Section V – Keywords

List any keywords that can be used to assist in searching the Architecture Blueprint for these Compliance Components. This information will be helpful for anyone that be looking for information on similar technologies.

Section VI – Component Classification

Component Classification – Provide the classification for this Compliance Component. (The process for determination is covered later in this chapter under Process.)

Classifications include:

- Emerging – Indicates new technology, which has the potential to become current.
- Current – Indicate recommended technology. Technology meets the requirements of the architecture.
- Twilight – Items that do not conform the Principles, Best Practices and Technology Trends
- Sunset – Item that does not conform to the Principles, Best Practices and Technology Trends, and a discontinuation date has been set.
- Sunset Date – Document the date for discontinuation of the Product Component.

Section VII - Rationale for Component Classification

Provide a rationale statement for the chosen classification based on the on review of:

- Domain Architecture Conformance
- Business Functionality Fit
- Technical Fit
- Operational Fit

Section VIII – Conditional Use Restrictions

Document any specialized circumstances and/or requirements associated with the use of this Compliance Component

Section IX – Migration Strategy

Document Migration Strategy for:

- Existing Compliance Components, classified as "Emerging" moving to the classification of "Current"
- Existing Compliance Components, classified as "Current" moving to either "Twilight" or "Sunset"

These strategies should identify the following items, as applicable.

- Existing user base and technical staff
- Training for existing user base
- Training for existing technical staff
- Impacts on existing Technology Areas, Product and Compliance Components
- Considerations for conversion
- Recommendations for the Compliance Component as it applies to:
  - New development
  - Modifications (corrections & enhancements)
  - Possibilities for user-base expansion (reuse)

Section X – Impact Position Statement

Document position statement on the impact analysis of this Compliance Component on the State. Consider the following items when developing the impact position statement:

- The impact on the IT Architecture definition
- Physical implementation requirements
- The impact on installed applications or services
- The impact on existing installation standards

Section XI – Current Status

Document the status of the document, indicating whether the document is under review, accepted, or rejected.

Section XII – Audit Trail

Creation Date - Provide the date the Compliance Component was created.

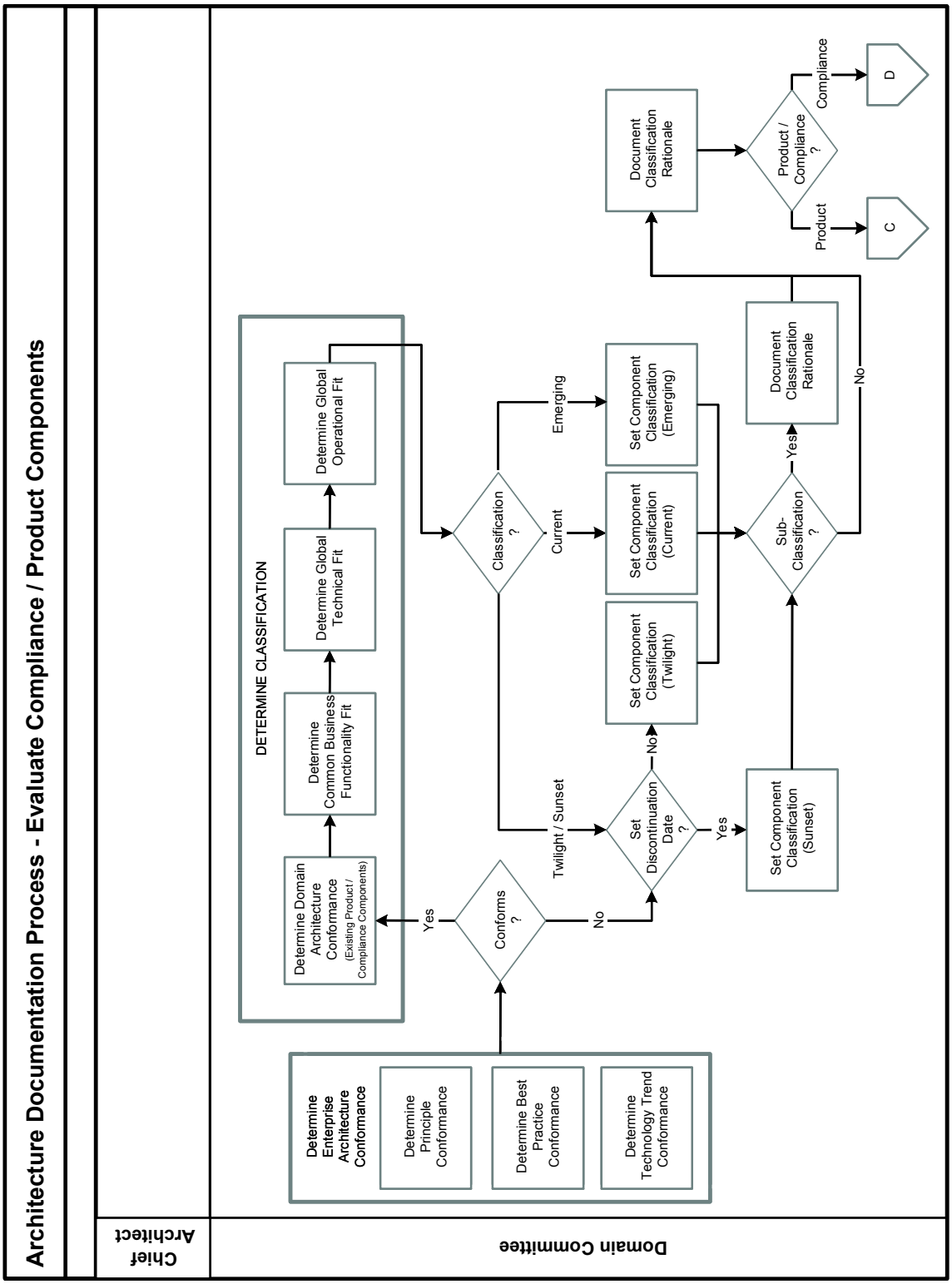
Date Accepted/Rejected – Provide the date the Compliance Component was accepted into the architecture or rejected.

Reason for Rejection – If the Compliance Component was rejected, document the reason for the rejection.

Last Date Reviewed – Document the most recent date the Compliance Component was taken through the Architecture Vitality Process.

Last Date Updated – Document the most recent date that any item in the Compliance Component template was changed.

Reason for Update – Document the reason for the update to the Compliance Component


Architecture Documentation Process - Evaluate Compliance / Product Components
Chief Architect
Domain Committee
Determine Enterprise Architecture Conformance
Determine Principle Conformance
Determine Best Practice Conformance
Determine Technology Trend Conformance
DETERMINE CLASSIFICATION
Determine Domain Architecture Conformance (Existing Product / Compliance Components)
Determine Common Business Functionality Fit
Determine Global Technical Fit
Determine Global Operational Fit
Conforms ?
Yes
No
Classification ?
Current
Emerging
Twilight / Sunset
Set Component Classification (Current)
Set Component Classification (Emerging)
Set Component Classification (Twilight)
Set Discontinuation Date ?
No
Yes
Set Component Classification (Sunset)
Sub-Classification ?
Yes
No
Document Classification Rationale
Document Classification Rationale
Product / Compliance ?
Product
Compliance
C
D

Evaluate Compliance/Product Components

In order to develop consistent evaluation of Products and/or Compliance Components associated with IT Architecture there must be objective selection and evaluation criteria.

Determine Enterprise Architecture Conformance - The following areas should be used as selection guidelines for each Product or Compliance Component.

Components that **do not** conform to Enterprise Architecture Pillars should be classified as either "Twilight" or "Sunset" (see further detail for these under **Classifications** below).

Determine Classification - For Components that **do conform** to the Enterprise Architecture Pillars, the following additional evaluation must be performed:

- Domain Architecture Conformance – The Component must align with the Architecture Blueprint. Determine how well the product fits with the existing IT Portfolio documented in the Architecture Blueprint.
- Common Business Functionality – The Component being evaluated must address the functional business requirements. This part of the evaluation should include information on current and pending release levels. Families of products should also be considered when relevant.
- Global Technical – The Component being evaluated must be consistent with the current and planned technical environment. Specific questions regarding product vendors are also included in this evaluation.
- Global Operational – The Component being evaluated must meet the systems and other management requirements for operating and supporting the service level agreements in a specific environment.

Set Component Classification – Based on results of the evaluation, classify the Component using the following classifications:

- *Sunset* Components are those that are **in use** and **not conforming** to the stated architecture direction. The sunset Component will have a **date of discontinuance identified,** indicating the date that the Component will no longer be acceptable for use within the architecture.
- *Twilight* Components are those that are **in use**, **not conforming** to the stated architecture direction**,** and have **no date of discontinuance identified**. These Components should not be used to develop new applications. Extensive modifications to these systems should be reviewed to determine if they should be redeployed completely using newer technology.
- *Current* Components are defined as those **having met the requirements** of the architecture. These recommended Components should be used in deployment of technology solutions.

- *Emerging* Components are those that **have potential to become current** architecture components. While identified as "Emerging" these Components should be used only in pilot or test environments, under very controlled regulations. After sufficient testing, these Components may be identified as "Current", or may be determined not architecturally compliant or functional within the state environment. Use of these Components requires a variance that must be documented and approved through the compliance process.

Set Component Sub-Classification – There are three Sub-Classifications that can be denoted:

- Technology Watch
- Variance
- Conditional Use Restriction

For a Product Component, any of the three will be documented, based on the situation. For a Compliance Component only the Conditional Use Restriction is documented, if needed.

- Technology Watch – When a product has been determined to no longer fit into the current classification of the Architecture Blueprint, but no replacement product has been identified, the product must remain in a classification of "Current" with a technology watch placed on it. When a product has a technology watch, it goes through vitality more frequently until a replacement product is found. The Technology Watch can be removed from the product, once a replacement is found.
- Variance – Documentation will be included if this product was accepted into the Architecture Blueprint based on a variance being granted.
- Conditional Use Restriction – Occasionally, a component has some characteristic that would limit its usefulness as an enterprise product. For example, some desktop database products may be well suited for a personal desktop application but should never be used for storing, accessing, or maintaining enterprise data.

For each of these sub-classifications the following information is gathered:

- Date – This is the date that the product was placed in this sub-classification
- Additional Information – This allows for additional information about the sub-classification to be captured including:
  - Information about the evaluation that placed the product into Technology Watch
  - Information including the group that received the variance.
  - Under what circumstances the conditional use is valid.

Document Classification Rationale – Once the classification is known the rationale for the classification must be documented.

Chapter 2: Architecture Review Process

Overview

The review process allows the Architecture Governance committees to review, debate, discuss, and make decisions regarding additions and changes to the Architecture Blueprint, MAEA Manual, and variance requests. During this process, determinations are also made regarding which variances will be accepted into the State's technology portfolio.

The proposed architecture changes can come from any of the following processes:

- Architecture Compliance Process
- Architecture Vitality Process
- Architecture Documentation Process
- Architecture Change Management Process

The process of reviewing changes to the MAEA Manual, Architecture Blueprint, and/or variance requests is comprised of three sub-processes:

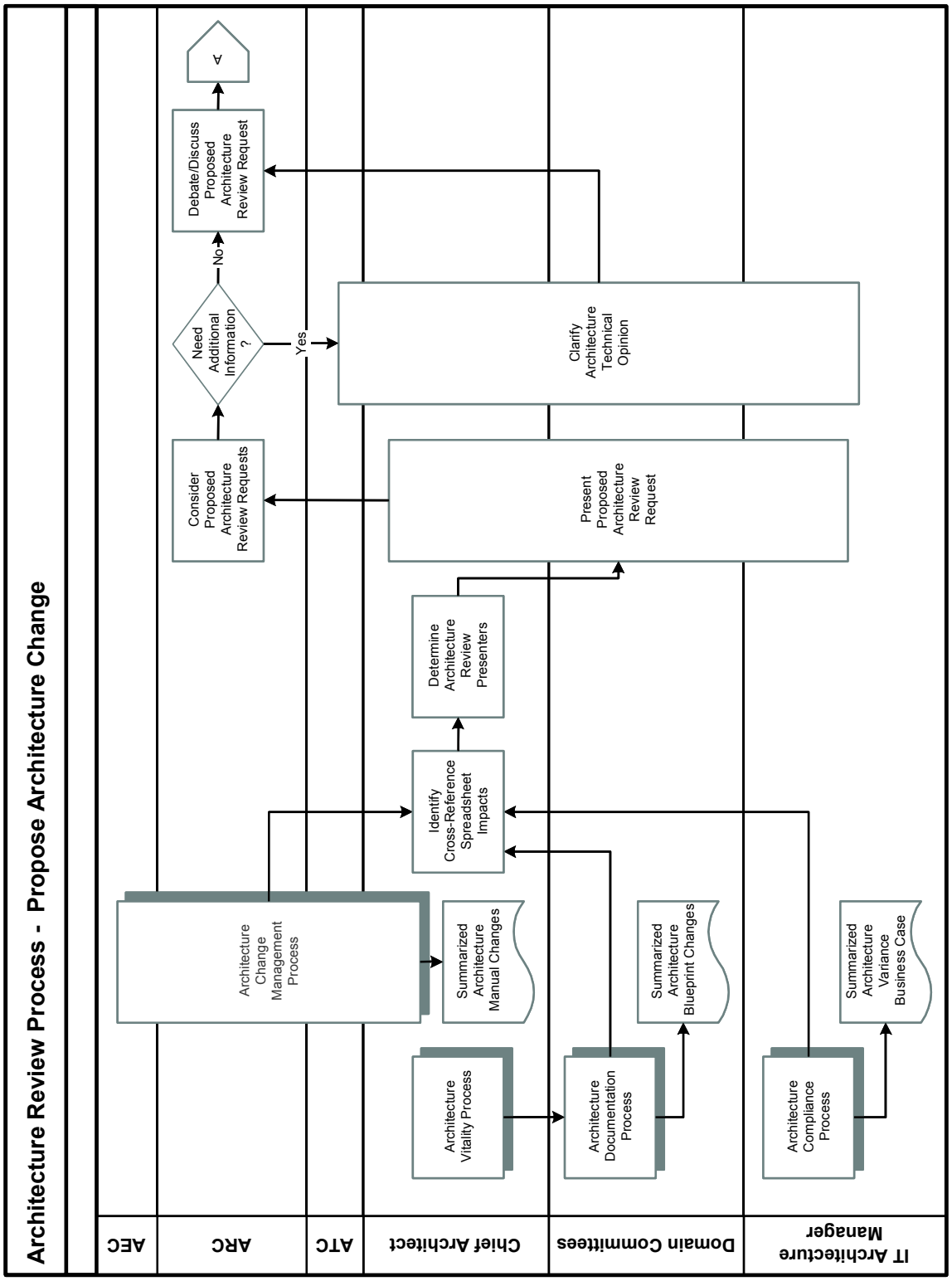
- Propose Architecture Change
- Determine Review Decision
- Document Review Decisions

Sub-Processes & Templates

Each sub-process follows the same format:

Process Model
Process Detail
Template (if applicable) - There are no templates as of this draft.
    Overview
    Sections
    Sample Template Form
    Template Detail

Enterprise Architecture is adaptive and must evolve to accommodate changes in business and technology.


Architecture Review Process - Propose Architecture Change
AEC
ARC
ATC
Chief Architect
Domain Committees
IT Architecture Manager
A
Debate/Discuss Proposed Architecture Review Request
No
Need Additional Information ?
Yes
Consider Proposed Architecture Review Requests
Clarify Architecture Technical Opinion
Present Proposed Architecture Review Request
Determine Architecture Review Presenters
Identify Cross-Reference Spreadsheet Impacts
Architecture Change Management Process
Summarized Architecture Manual Changes
Summarized Architecture Blueprint Changes
Summarized Architecture Variance Business Case
Architecture Vitality Process
Architecture Documentation Process
Architecture Compliance Process

Propose Architecture Change

Three processes can trigger the Architecture Review process:

- Architecture Change Management Process
- Architecture Documentation Process
- Architecture Compliance Process

Depending on the process that triggered the review, the Proposed Architecture Review Request will contain different information

- Architecture Change Management Process – The information delivered from this process includes the Summarized Architecture Manual Changes.
- Architecture Vitality Process and Architecture Documentation Process – The Summarized Architecture Blueprint Changes will result from these processes.
- Architecture Compliance Process – A Summarized Architecture Variance Business Case will be delivered for review.

Identify Cross-Reference Spreadsheet Impacts – The Chief Architect will update the cross-referenced spreadsheet with the proposed changes. This aids in communicating with the IT Community the Architecture Blueprint information being proposed. If various review items go together, they must be denoted on the summaries supplied.

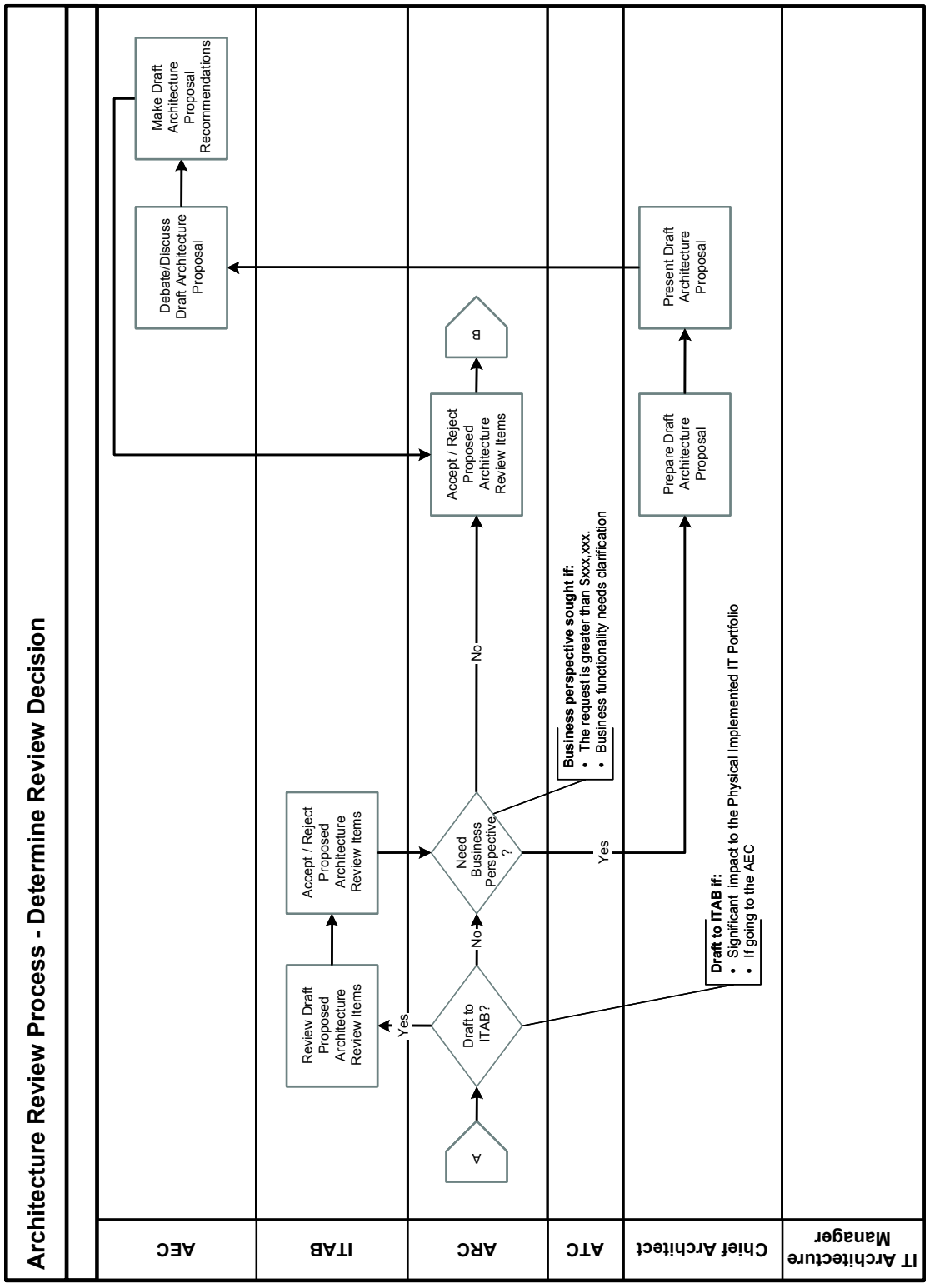
Determine Architecture Review Presenters, Present Proposed Architecture Review Request – For each proposed change, the Chief Architect will determine the person best suited to make the presentation of the request to the Architecture Review Committee. The presentation will be made at the regularly scheduled Architecture Review Committee meeting, or a special meeting can be scheduled.

Consider Proposed Architecture Review Requests – For each proposed change, the ARC should consider:

- The impact on the IT Architecture Blueprint
- Physical implementation requirements
- The impact on installed applications or services
- Impact on existing installation standards
- Funding

Clarify Architecture Technical Opinion – during this consideration, the ARC may seek various Architecture Committees' technical opinions in regards to the change being requested. The Architecture Committees may be requested to clarify some of the information they provided.

Debate/Discuss Proposed Architecture Review Request – The members of the ARC will weigh the pros and cons of accepting or rejecting the change. Consideration will be given to the immediate needs and long term needs of the State. Both perspectives have to be given proper consideration.


Architecture Review Process - Determine Review Decision
IT Architecture Manager
Chief Architect
ATC
ARC
ITAB
AEC
Present Draft Architecture Proposal
Prepare Draft Architecture Proposal
Business perspective sought if:
• The request is greater than $xxx,xxx.
• Business functionality needs clarification
Draft to ITAB if:
• Significant impact to the Physical Implemented IT Portfolio
• If going to the AEC
A
Draft to ITAB?
No
Yes
Need Business Perspective ?
No
Yes
B
Accept / Reject Proposed Architecture Review Items
Review Draft Proposed Architecture Review Items
Accept / Reject Proposed Architecture Review Items
Debate/Discuss Draft Architecture Proposal
Make Draft Architecture Proposal Recommendations

Determine Review Decision

Various groups outside of the Architecture Review Committee may be consulted in making the final decision on accepting or rejecting the proposed Architecture Review Items.

Review Draft Proposed Architecture Review Items – The Draft Proposed Architecture Review Items will be sent to the ITAB for review when the request will significantly impact the currently installed IT Portfolio, or the opinion of the AEC will be sought regarding the request.

Prepare Draft Architecture Proposal – The opinion of the Architecture Executive Committee may be sought to provide a business perspective for a variety of reasons such as:

- The request exceeds a set dollar value
- Additional explanation is needed on the business functionality.

The Chief Architect will prepare the proposals to be submitted to the AEC. They may request that the IT Architect Manager or Architecture Committees provide more information to help clarify specific details surrounding the architecture review request.

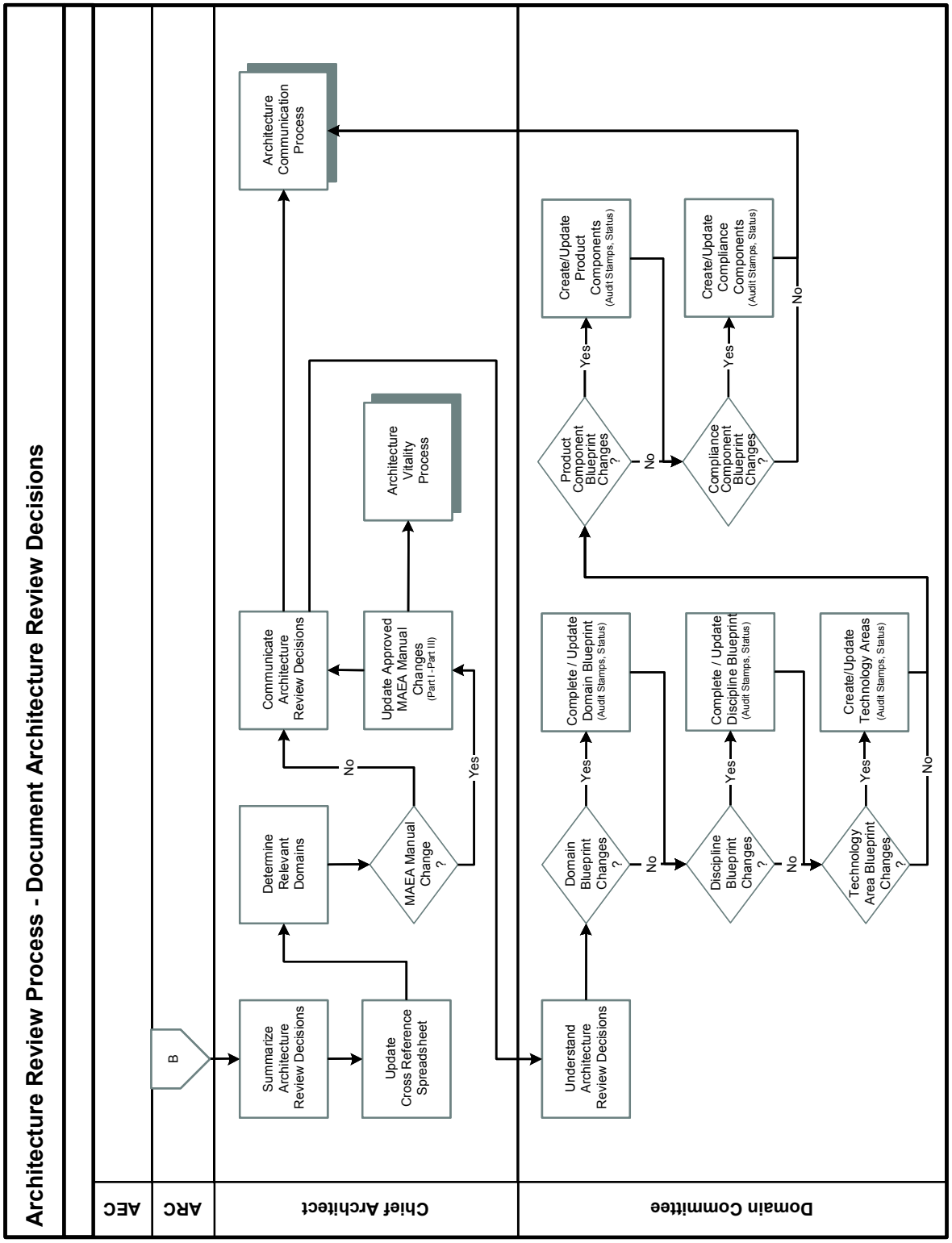
Present Draft Architecture Proposal – The Chief Architect will present the draft Architecture Proposal to the AEC during their next meeting. They may ask for the requesting IT Architecture Manager or Architecture Review Committee Chairperson to be present when the request is being presented to aid in answering any specific questions they may have.

Debate/Discuss Draft Architecture Proposal – The members of the AEC weigh the pros and cons of accepting or rejecting the change. Consideration will be given to the immediate needs and long term needs of the State. Both perspectives have to be given proper consideration.

- The impact on the State's Business Portfolio
- Physical implementation requirements on the business
- The impact on processes and services that currently support the business
- Funding

Make Draft Architecture Proposal Recommendations – The AEC will make recommendations to the ARC and Chief Architect on whether to accept or reject the Proposed Architecture Review Items.

Accept / Reject Proposed Architecture Review Items – Based on the consideration of the business case and the immediate and long term needs of the State, the ARC will either accept or reject the proposed architecture review items. This acceptance or rejection may be a line item acceptance or rejection. If various review items go together, they will be accepted or rejected together.


Architecture Review Process - Document Architecture Review Decisions
AEC
ARC
Chief Architect
Domain Committee
B
Summarize Architecture Review Decisions
Update Cross Reference Spreadsheet
Determine Relevant Domains
MAEA Manual Change ?
No
Yes
Update Approved MAEA Manual Changes (Part I -Part III)
Architecture Vitality Process
Communicate Architecture Review Decisions
Architecture Communication Process
Understand Architecture Review Decisions
Domain Blueprint Changes ?
Yes
No
Complete / Update Domain Blueprint (Audit Stamps, Status)
Discipline Blueprint Changes ?
Yes
No
Complete / Update Discipline Blueprint (Audit Stamps, Status)
Technology Area Blueprint Changes ?
Yes
No
Create/Update Technology Areas (Audit Stamps, Status)
Product Component Blueprint Changes ?
Yes
No
Create/Update Product Components (Audit Stamps, Status)
Compliance Component Blueprint Changes ?
Yes
No
Create/Update Compliance Components (Audit Stamps, Status)

Document Architecture Review Decision

Summarize Architecture Review Decisions – The Chief Architect will summarize the decision made in the Architecture Review Committee meeting.

Update Cross Reference Spreadsheet – The Cross Reference Spreadsheet will be updated with the acceptance or rejection of the proposed architecture changes.

Determine Relevant Domains – Based on the decisions that were made, various Domains may be affected. The Domain Committees will be given detailed information by the Chief Architect about the review decisions in the Communicate Architecture Review Decisions process step.

Update Approved MAEA Manual Changes – This sub-process completes the Architecture Change Management process by including the identified changes to the MAEA Manual. After the updates have been made, the Architecture Vitality Process is triggered to determine whether the Architecture Blueprint needs to be updated as well. This is a continuation of the Architecture Lifecycle.

Communicate Architecture Review Decisions – The major changes or decisions of the Architecture Review Process must be communicated to the IT community through the Architecture Communication Process. Domain specific information should be provided to the various affected Domains in regards to reviews of the Architecture Blueprint levels.

Understand Architecture Review Decisions – The Domain Committee must understand the decisions communicated to them. Once they have an understanding, they must review the Architecture Blueprint and make updates as needed to document the decisions.

The following processes are sub-processes of the Architecture Documentation Process, which is covered in detail in MAEA Manual Part II – Chapter 1: Architecture Documentation Process.

Complete / Update Domain – If the change being sought was accepted and identified as a new domain, that area should be documented with all of the level completed as designated by the Domain Committee's documentation requirements.

If the change being sought identified changes to an existing domain, that domain and the other affected domains will should be updated to reflect the accepted or rejected change.

Complete / Update Discipline – If the change being sought was accepted and identified as a new discipline, then it must be documented with all the levels completed, as designated by the Domain Committees' documentation requirements. If the proposed change identified changes to an existing discipline, the discipline under review and the other affected disciplines must be updated to reflect the accepted or rejected change.

Create / Update Technology Areas – If the proposed change was accepted and identified as a new technology area, then that area will must be documented with all the levels completed as designated by the Domain Committee's documentation requirements. If the proposed change identified changes to an existing technology area, then that area must be updated to reflect the accepted or rejected change.

Create / Update Product Components – If the proposed change was accepted and identified as a new product component, then that product must be documented with all the levels completed as designated by the Domain Committees' documentation requirements. If the proposed change identified changes to an existing product component, then that product must be updated to reflect the accepted or rejected change. Conditional Use should be documented as well, if it applies.

Create / Update Compliance Components – If the proposed change was accepted and identified a new compliance component, then that component must be documented. If the proposed change identified changes to an existing compliance component, then that component must be updated to reflect the accepted or rejected change. Conditional Use should be documented as well, if it applies.

CHAPTER 3: Architecture Communications Process

Overview

The communications process is a required segment of the Architecture to ensure that all users of the architecture understand the objectives of the architecture plan and its significance to the State of Missouri. In addition, all users must have access to the latest version of the Architecture Blueprint in order to make educated decisions about future business and technology.

This requires that a mechanism must exist that communicates with all users to ensure that their activities will be synchronized with the plan. The document must also be available to contractors and vendors who expect to do business with the state. In many instances, they will be required to conform to the State's architecture. The Communications Process will be documented in the "Architecture Communications Plan" which is pending development and will be included as an attachment to this manual.

The following items will be completed to finalize the communications plan.

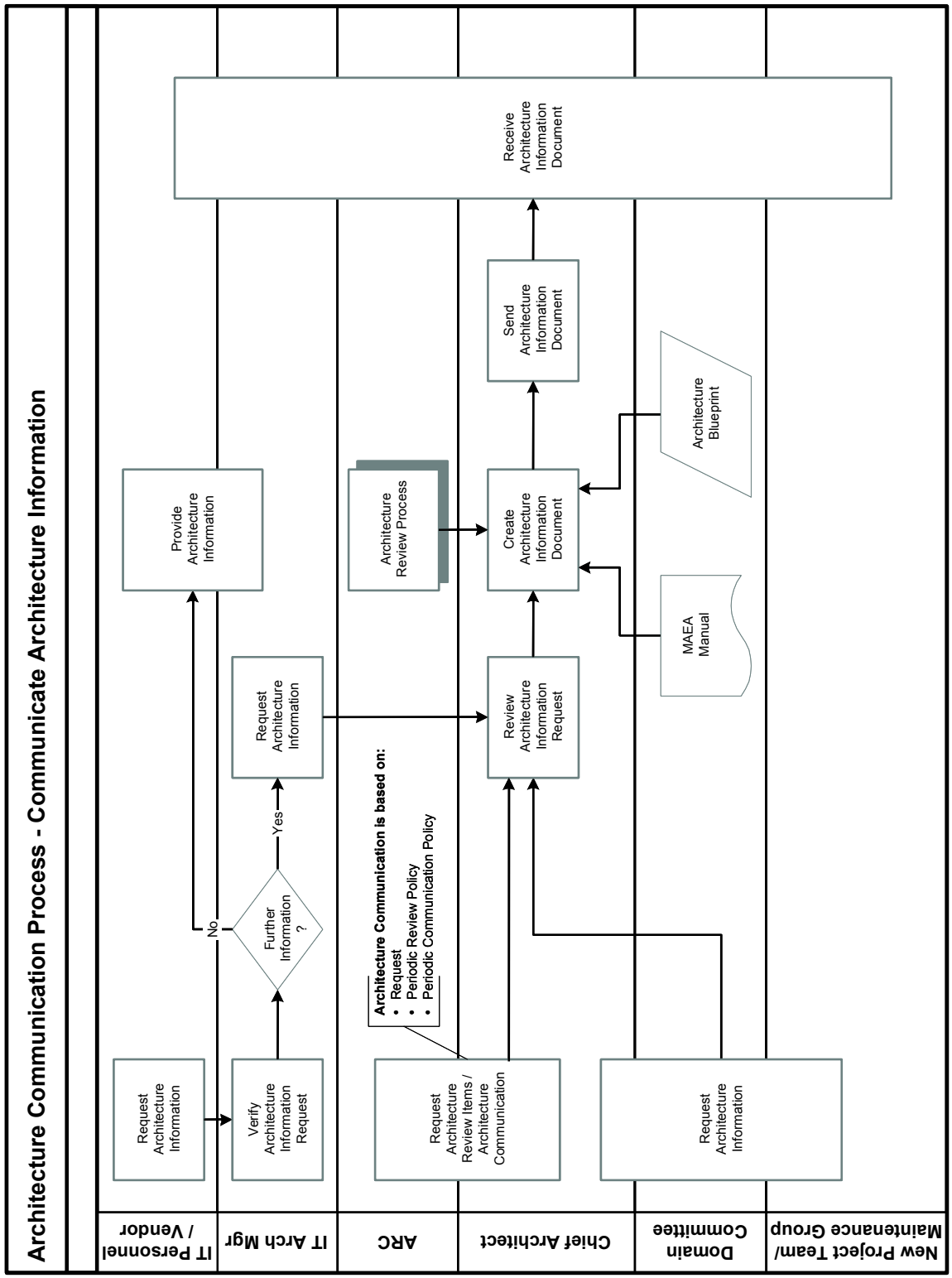
- Identify subsets of users
- Establish content
- Publish architecture document electronically (Internet)
- Post changes electronically
- Include architecture concepts in training programs for project management, risk assessment and project oversight
- Marketing to ensure funding and public support

The goal of a statewide Enterprise Architecture is to enhance coordination, simplify integration, build a consistent infrastructure, and generally allow greater efficiencies in the development of technology solutions.

Sub-Processes & Templates

Each of sub-processes follows the same format:

Sub-Process
Process Model
    Process Detail
    Template (if applicable) - There are no templates as of this draft.
        Overview
        Sections
        Sample Template Form
        Template Detail


Architecture Communication Process - Communicate Architecture Information
IT Personnel / Vendor
IT Arch Mgr
ARC
Chief Architect
Domain Committee
New Project Team/ Maintenance Group
Request Architecture Information
Verify Architecture Information Request
Further Information ?
No
Yes
Provide Architecture Information
Request Architecture Information
Request Architecture Review Items / Architecture Communication
Architecture Communication is based on:
• Request
• Periodic Review Policy
• Periodic Communication Policy
Architecture Review Process
Review Architecture Information Request
Create Architecture Information Document
Send Architecture Information Document
Receive Architecture Information Document
Request Architecture Information
MAEA Manual
Architecture Blueprint

Communicate Architecture Information

The Architecture Communication Process is a set of communication "documents" that can be pushed or pulled from architecture information (Architecture Blueprint or MAEA Manual) to the various interested parties. Some of the communication is best queried from the architecture information itself. While other communication is best summarized, with ability to query for the details.

This Architecture Communication Process model shows the various interested parties and architecture processes that can trigger Architecture Communication Documents to be produced and delivered.

Request Architecture Information – All IT Personnel, Vendors, Chief Architect, Domain Committees and/or IT Project/ Maintenance Groups can request architecture information. Requests can include information such as:

- All information for a Domain (or any of the Architecture Blueprint Levels)
- All architecture information that has not been reviewed in the past 4 to 6 months
- All compliance components for a specific Product (i.e. all compliance components for DB2 database)
- All architecture information associated with a keyword (i.e. the keyword: Web)
- All product components that are classified as "current" in the architecture

The type of request is dependent upon the requirements of the requesters. This can be seen in the above chart as well. Organizations should determine such items as:

- What information can be shared
- At what point in the Architecture Lifecycle processes will sharing be allowed
- Which IT Personnel should have access to what information
- The balance between need and efficiency

Verify Architecture Information Request – When an Architecture Information Request comes from IT Personnel or a Vendor for a specific agency, the IT Architecture Manager for that agency verifies the request. This allows the IT Architecture Manager to understand the type of information that is being requested. The IT Architecture Manager can decide whether he/she can provide the information or if further information is needed from the Chief Architect.

Provide Architecture Information – If the IT Architecture Manager can provide the information without getting further information from the Chief Architect he/she will provide it to the requester. The Chief Architect can be included in the communication to allow a complete picture of the type of information requested from the Architecture Program.

Request Architecture Review Items/Architecture Communication – During periodic Architecture reviews the information that is documented in the Architecture Blueprint or MAEA Manual that has not been through a review should be pulled

together and summarized for the ARC. The status allows the Chief Architect to pull the information and provide it in a Communication Document.

Architecture Communication requests are based on specific requests or the periodic communication policy. The periodic communication policy allows the Chief Architect and the Architecture Review Committee to decide how often information should be pushed to specific IT Personnel and other interested parties.

Create Architecture Information Documents – Based on the trigger that caused the information to be pulled together for the Architecture Information Document, the content will vary.

The following types of information are available to share:

- Summaries of the Architecture Review
- MAEA Manual
- Architecture Blueprint information

Send Architecture Information Document – Based on what triggered the Architecture Communication Document to be produced, the document will be sent out to the appropriate interested parties.

Receive Architecture Information Document – The interested party receives the requested Architecture Communication Document. The interested party receives information based on the following criteria:

- The interested party is a subscriber to the Architecture Communication Process
- The interested party is a requester of Ad-hoc Architecture Information Document
- Management has designated the person as a required receiver of specific Architecture Communication documents.

CHAPTER 4: Architecture Compliance Process

Overview

The process of determining compliance is comprised of three sub-processes to help determine, document, and request architecture variances. The sub-processes include:

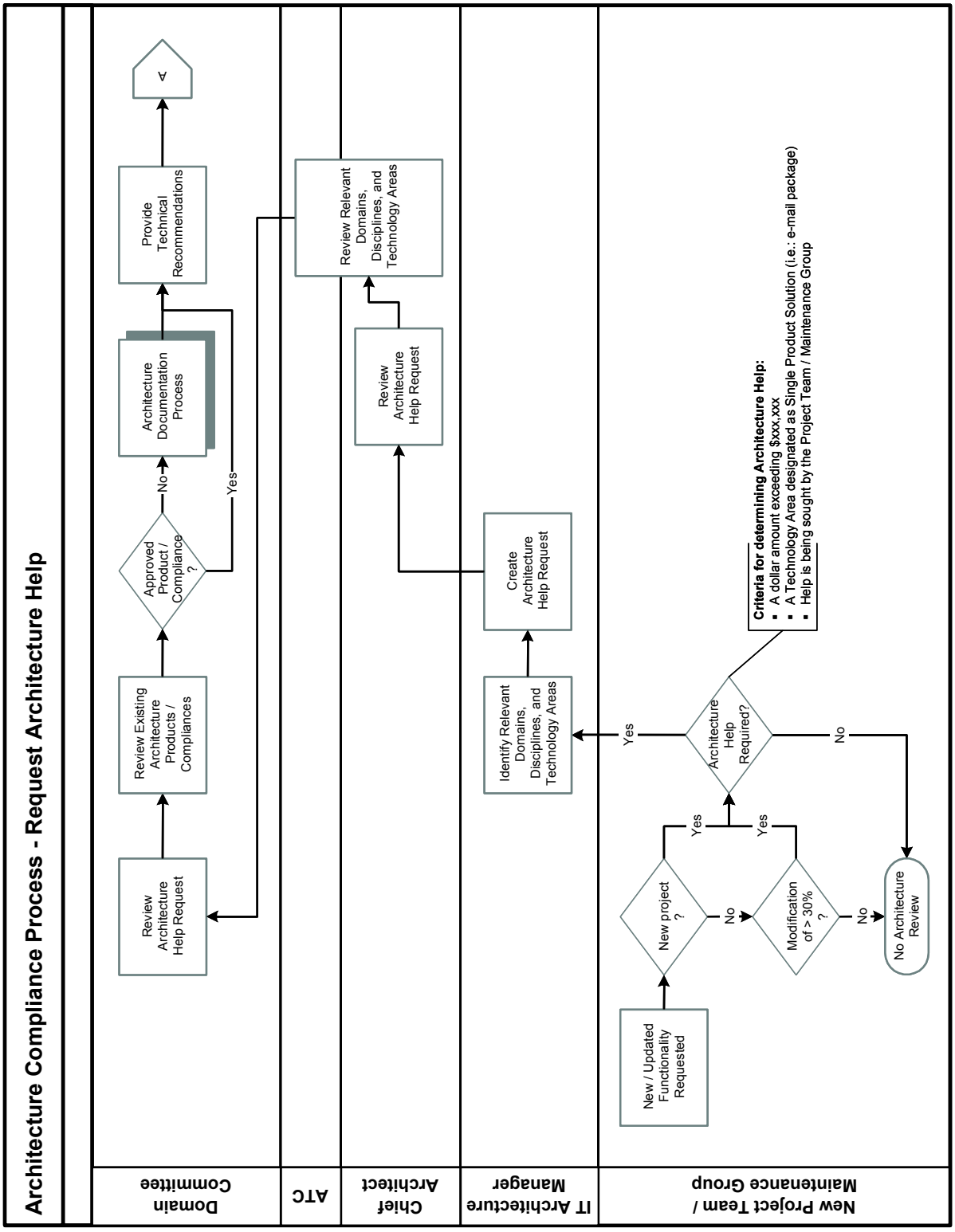
- Request Architecture Help
- Determine Technology Options
- Create Architecture Variance Business Case.

Sub-Processes & Templates

Each sub-process follows the same format:

Process Model
Process Detail
Template (if applicable) - There are no templates as of this draft.
    Overview
    Sections
    Sample Template Form
    Template Detail

The support of enterprise architecture requires the involvement of personnel in a variety of roles and responsibilities.


Architecture Compliance Process - Request Architecture Help
Domain Committee
ATC
Chief Architect
IT Architecture Manager
New Project Team / Maintenance Group
New / Updated Functionality Requested
New project ?
Yes
No
Modification of > 30% ?
Yes
No
No Architecture Review
Architecture Help Required?
Yes
No
Criteria for determining Architecture Help:
A dollar amount exceeding $xxx,xxx
A Technology Area designated as Single Product Solution (i.e.: e-mail package)
Help is being sought by the Project Team / Maintenance Group
Identify Relevant Domains, Disciplines, and Technology Areas
Create Architecture Help Request
Review Architecture Help Request
Review Relevant Domains, Disciplines, and Technology Areas
Review Architecture Help Request
Review Existing Architecture Products / Compliances
Approved Product / Compliance ?
No
Yes
Architecture Documentation Process
Provide Technical Recommendations
A

Request Architecture Help

New / Updated Functionality Requested - When a request is submitted to create or update functionality in the State's information technology areas, the scope must be determined and requirements must be documented. Once this analysis is complete, the possible solutions can be reviewed.

Analysis of the requirements will determine if a formal project will be started or if a request for production support will be initiated. Architecture compliance reviews using adopted standards should be identified in the project plan schedule. New Project Teams and Maintenance Groups determine if their project/change requires compliance with the documented architecture. This required compliance applies to the following criteria:

- All new projects
- Modifications of greater than 30% of a technology

If the project/change meets neither requirement, it does not need to be reviewed for compliance against the documented architecture.

Domain committees are available to assist, if a project/maintenance team requires help in reviewing their project against the documented architecture or would like a new technology to be reviewed against the Architecture Blueprint.

Architecture groups are required to review/assist a team if:

- The dollar amount of the technology being suggested is greater than $xxx,xxx
- The Technology Area related to their request for a variance is designated as a single product solution (because of maintenance and inoperability issues a single product has been designated as acceptable in the current documented architecture).
- Help is being sought by the project team / maintenance group.

Identify Relevant Domains, Disciplines, and Technology Areas – The IT Architecture Manager must identify which of the domain committees are impacted by the project/change. This identification may not be complete until reviewed by the Chief Architect and the Architecture Technology Committee.

Create Architecture Help Request – An IT Architecture Manager will fill out an Architecture Help Request, allowing the Chief Architect to determine which of the Domain Committees can assist. At times, the solutions may already exist in the Architecture Blueprint and the Chief Architect can direct the IT Architecture Manager to the correct information. If the Variance is being sought because of external requirements, these should be documented at the time of the Help Request.

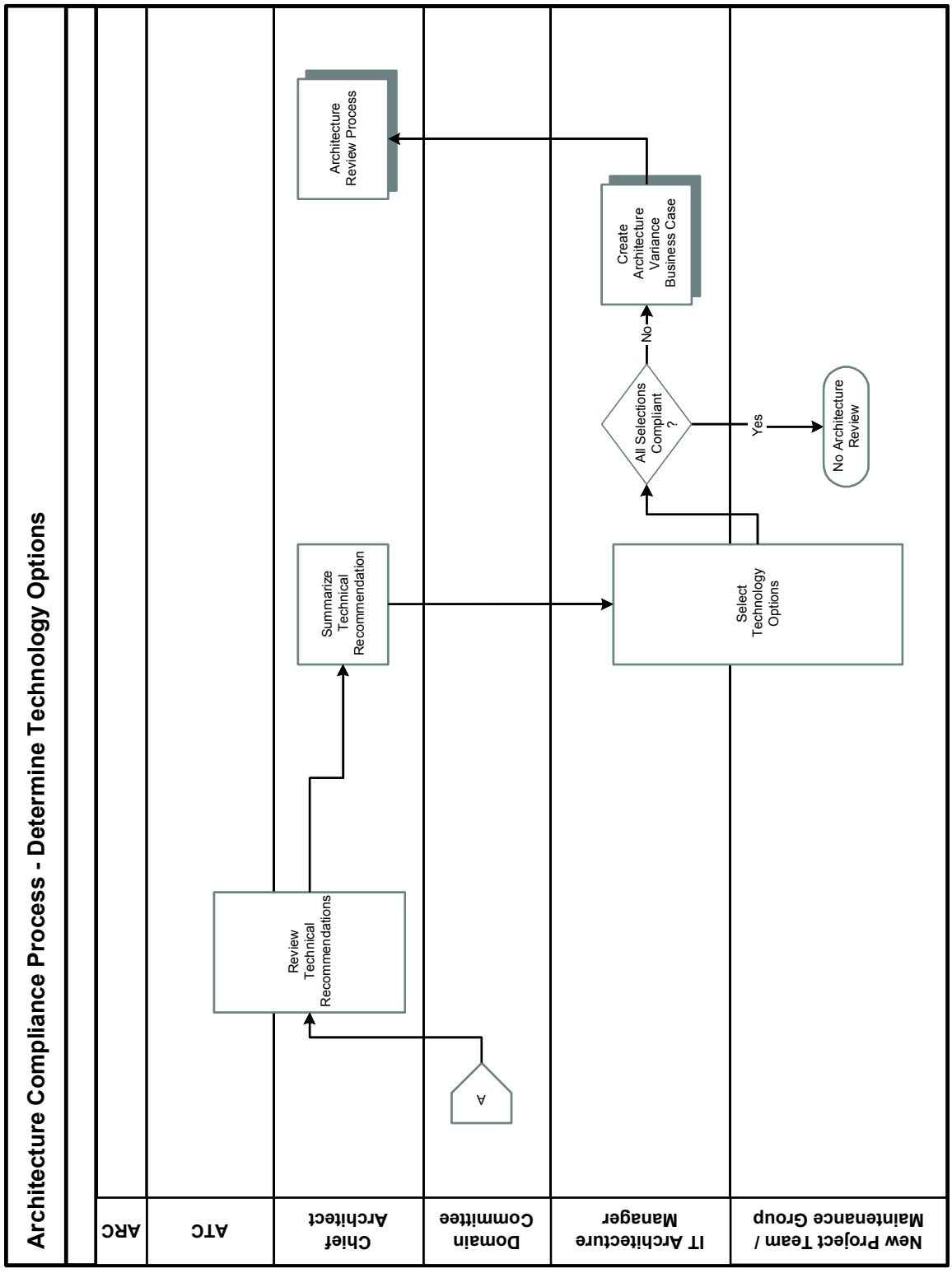
Review Architecture Help Request – The Chief Architect receives the Architecture Help Request and reviews it for completeness to ensure it contains enough information to determine possible solutions, supplies contact information of the requestor, and includes the resolution date.

Review Relevant Domains, Disciplines, and Technology Areas – The Chief Architect, with help from the Architecture Technology Committee, will determine if all of the relevant Domains have been identified. They may also point to possible solutions that have already been documented in the Architecture Blueprint.

Review Architecture Help Request, Review Existing Architecture Products / Compliances, and Document Architecture Process – Based on the type of Architecture Help Request being sought, the Domain Committees will schedule time to aid the project team/maintenance group. Their help may include:

- Identifying existing technology within the State's products that can meet the requirements of the new or updated functionality being requested
- Aiding in a new technology scan to find products that can meet the requirements of the new or updated functionality being requested
- After finding possible products, executing the Evaluate Product/Compliance Component process within the Document Architecture Process (This is covered in detail in MAEA Part II - Chapter 1: Architecture Documentation Process.)
- Reviewing products that the project teams/management groups bring forward for their possible fit into the documented architecture.

Provide Technical Recommendations – Based on the reviews and evaluations conducted, the Domain Committees will make technical recommendations to the Chief Architect. This information will be used to aid in the project team/maintenance group's selection of a solution for their functional requirements.


Architecture Compliance Process - Determine Technology Options
ARC
ATC
Chief Architect
Domain Committee
IT Architecture Manager
New Project Team / Maintenance Group
Review Technical Recommendations
A
Summarize Technical Recommendation
Architecture Review Process
Select Technology Options
All Selections Compliant ?
No
Yes
Create Architecture Variance Business Case
No Architecture Review

Determine Technology Options

Review Technical Recommendations – The Chief Architect will review the recommendations presented by the Domain Committees. Based on this review, he may seek advice from the Architecture Technology Committee.

The Architecture Technology Committee aids the Architecture Compliance Process by reviewing and clarifying the recommendations provided by the Domain Committees.

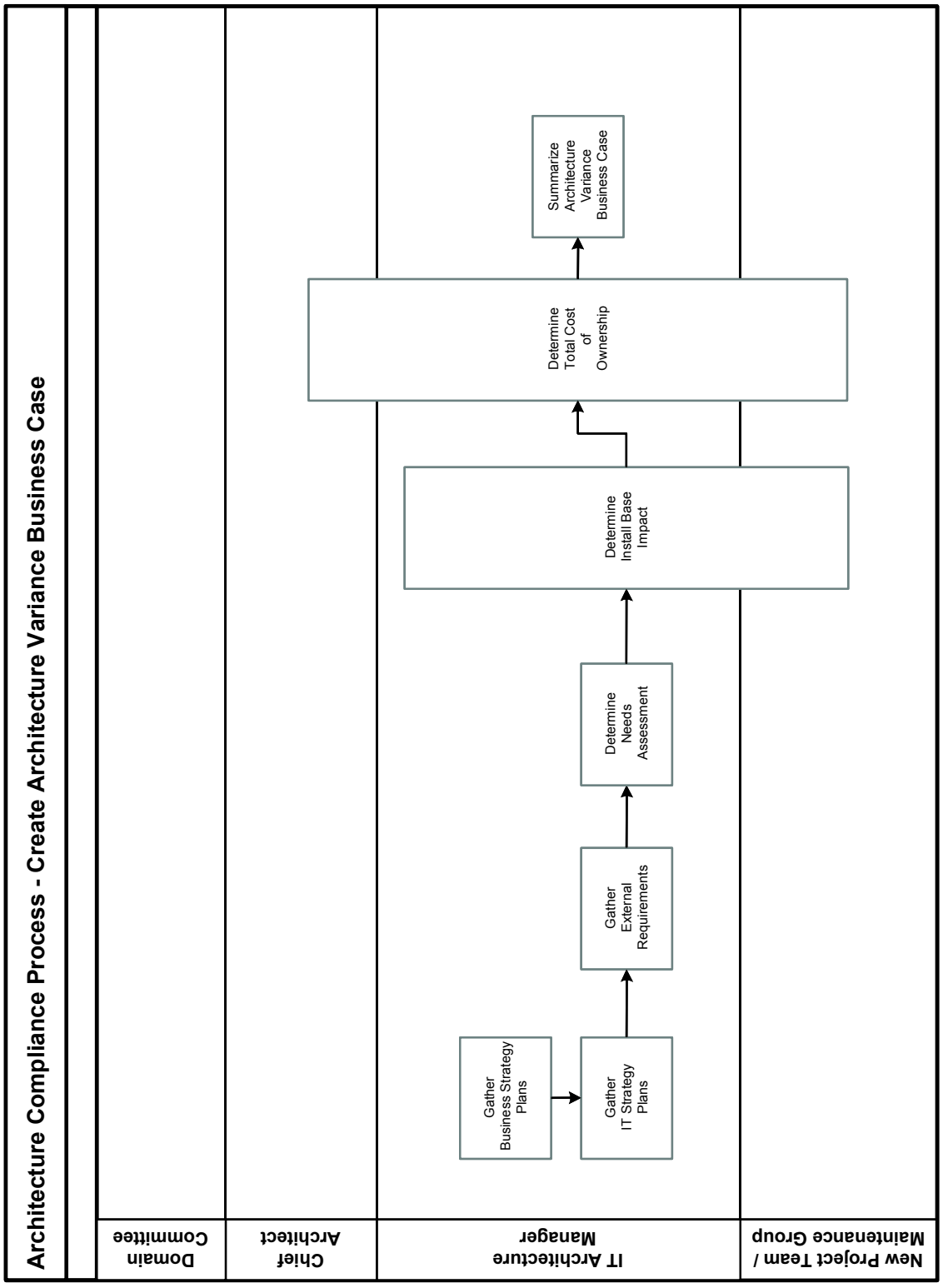
A recommendation is provided after the Architecture Technology Committee has reviewed and clarified the Technical Recommendations.

Summarize Technical Recommendations – The Chief Architect will prepare a summary from the Domain Committee's Technical Recommendation and the Architecture Technology Committee's Technical Oversight Recommendation. This information will be given to the IT Architecture Manager to aid the project team/maintenance group in determining a technology solution.

Select Technology Options – Various options for solving the functional requirements will be reviewed and a technology option will be chosen. If all of the options selected are compliant with the documented architecture, no further information is required.

Create Architecture Variance Business Case – If the technology option chosen is not compliant with the documented architecture, the IT Architecture Manager must create a business case for requesting the architecture variance. This process is explained in the sub-process: Create Architecture Variance Business Case.

Architecture Review Process – Once the Architecture Variance Business Case has been prepared, the Document will be presented and reviewed at the next Architecture Review Meeting. This meeting's process is explained in MAEA Part II – Chapter 2: Architecture Review Process.


Architecture Compliance Process - Create Architecture Variance Business Case
Domain Committee
Chief Architect
IT Architecture Manager
New Project Team / Maintenance Group
Gather Business Strategy Plans
Gather IT Strategy Plans
Gather External Requirements
Determine Needs Assessment
Determine Install Base Impact
Determine Total Cost of Ownership
Summarize Architecture Variance Business Case

Create Architecture Variance Business Case

Gather Business Strategy Plans – The IT Architecture Manager will identify and gather relevant business inputs. These can include updated Business Strategy Plans.

Gather IT Strategy Plans – The IT Architecture Manager will identify and gather relevant technology inputs. These can include updated IT Strategy Plans.

Gather External Requirements – The IT Architecture Manager will identify and gather any external requirements that would dictate the use of the technology.

Determine Needs Assessment – The IT Architecture Manager will articulate all needs or requirements to be met by the technology.

Determine Install Base Impact – The Project Team/Maintenance Group, and IT Architecture Manager will work together to document the physical implementation requirements of the new product / compliance component.

Determine Total Cost of Ownership – During the impact analysis, some of the costs associated with the product will have been determined. Other costs include licensing fees, initial product costs, implementation costs, and on-going maintenance costs. These costs must include the cost of personnel required to maintain and enhance the product as it goes through its product lifecycle. The costs relevant to the agency will be determined by the project team / maintenance group and the IT Architecture Manager. The Chief Architect will also assist on cost of ownership issues of a global nature.

Summarize Architecture Variance Business Case – Once everything has been documented and determined, the IT Architecture Manager must produce a summary of all of the technical and business inputs to present to the Architecture Review Committee.

Chapter 5: Architecture Vitality Process

Overview

Vitality is the process that insures the Architecture Blueprint remains current and accurate. This is a major requirement of the overall architectural process. To ensure vitality, IT architecture must be reviewed from changes to the MAEA Manual, recent accepted variances and a study of technology directions. Subject matter experts must ensure that technology solutions are extensible and sustainable.

Architectural reviews should occur every four to six months at a minimum. The architecture review of IT projects should become a standard part of IT project plans. These reviews, along with compliance reviews, become the most prominent part of the vitality process.

This process of routinely reviewing the documented architecture is comprised of one sub-process to help determine, document, and request architecture changes:

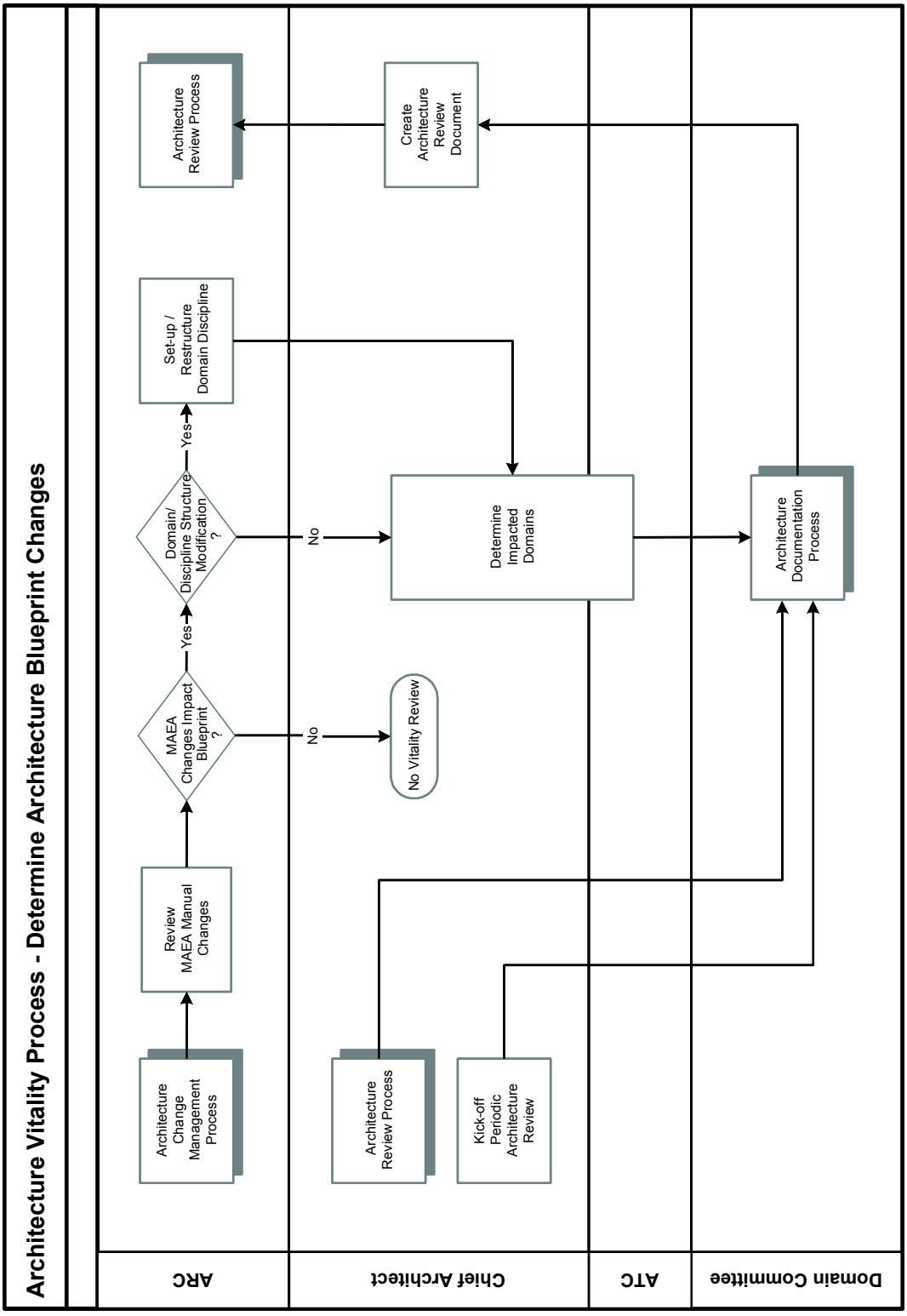
- Determine Architecture Blueprint Changes

Enterprise Architecture is adaptive and must evolve to accommodate changes in business and technology.

Sub-Processes & Templates

The sub-process follows this format:

Process Model
Process Detail
Template (if applicable) - There are no templates as of this draft.
    Overview
    Sections
    Sample Template Form
    Template Detail


Architecture Vitality Process - Determine Architecture Blueprint Changes
ARC
Chief Architect
ATC
Domain Committee
Architecture Change Management Process
Review MAEA Manual Changes
MAEA Changes Impact Blueprint ?
No
No Vitality Review
Yes
Domain/ Discipline Structure Modification ?
No
Determine Impacted Domains
Yes
Set-up / Restructure Domain Discipline
Architecture Review Process
Architecture Review Process
Create Architecture Review Document
Kick-off Periodic Architecture Review
Architecture Documentation Process

Determine Architecture Blueprint Changes

Three processes can trigger the Architecture Vitality Process:

- Architecture Change Management Process
- Architecture Review Process
- Periodic Architecture Review

Depending on the process that triggered the vitality to begin, the flow to start the Architecture Documentation Process will differ.

- Architecture Change Management Process – The ARC will need to determine if the Blueprint is impacted and/or if a new/restructured Domain/Discipline is required.
- Architecture Review Process – The Architecture Business Case variances created within the Compliance Process are reviewed within the Architecture Review Process, and forwarded for standardization in the Architecture Blueprint.
- Periodic Architecture Review – Architecture Blueprint levels that have not been reviewed for x period of time will need to be reviewed to assure their classification and part in the Architecture Blueprint is still acceptable.

Review MAEA Manual Changes – Based on the MAEA Manual updates that occurred during the Architecture Change Management Process determine if those changes impact the Architecture Blueprint in any manner. Examples can include:

- Changes to the Architecture Blueprint Templates – May require previously documented pieces of the Architecture to be further documented.
- Changes to the Enterprise Pillars may require a new classification of products or compliance components.

Kick-off Periodic Architecture Review – Architectural vitality reviews should occur every four to six months at a minimum. Based on the audit stamp information, a Domain Committee can determine which of the various levels of the architecture must go through the Architecture Documentation Process.

Set-up / Restructure Domain Discipline – Based on changes in the MAEA Manual it may be determined that new or restructured Domains/Disciplines are required. If so, the following information will be provided by the ARC:

- Domain Definition
- Domain Boundary
- Associated Disciplines
- Discipline Definition
- Discipline Boundary

Determine Impacted Domains – In order to start the review of the Architecture Blueprint, the impacted Domains must be determined, based on additions or changes to

the Enterprise Architecture Pillars (overarching principles, best practices, and technology trends) or addition/restructuring of Domains/Disciplines.

Architecture Documentation Process – The levels of the architecture to be reviewed will be determined by the triggering event that caused the Architecture Blueprint to go back through the Architecture Documentation Process.

Changes in the Enterprise Architecture Pillars, or Periodic Architecture Review cycles will cause the Architecture Blueprint to be reviewed from the Domain level down.

Requests from project team/maintenance group can cause specific Technology Areas and below to be reviewed. This process will address whether a new piece of the architecture must be added or if classifications of existing pieces of the Architecture Blueprint must be changed. If Disciplines or Domains must be segregated, this is documented and submitted to the Chief Architect.

Create Architecture Review Document – The Chief Architect produces a draft review document that summarizes the technical and business inputs from:

- Architecture Blueprint: Domain Results (Output from the Architecture Documentation Process)
- Details of any approved variances from standards

Architecture Review Process – Once the Architecture Review Document has been prepared, the Document will be presented and reviewed at the next Architecture Review Meeting, whose process is documented in the Architecture Review Process (MAEA Part II - Chapter 2).

CHAPTER 6: Architecture Change Management Process

Overview

The Architecture Change Management Process addresses the changes to the MAEA Manual. It does not address changes to the Architecture Blueprint itself.

To ensure vitality, the MAEA manual must be reviewed from three perspectives, considering business strategy, IT strategy and recommendations for enhancement. Input must be provided from the ITAB, AEC, and/or ARC for the business and IT strategy. Any time business strategies or IT strategies make a noticeable shift, the MAEA manual review may be required. MAEA Manual reviews should occur every one to two years at a minimum.

This process of routinely reviewing the MAEA Manual is comprised of one sub-process to help determine, document, and request architecture manual changes:

- Determine MAEA Manual Changes

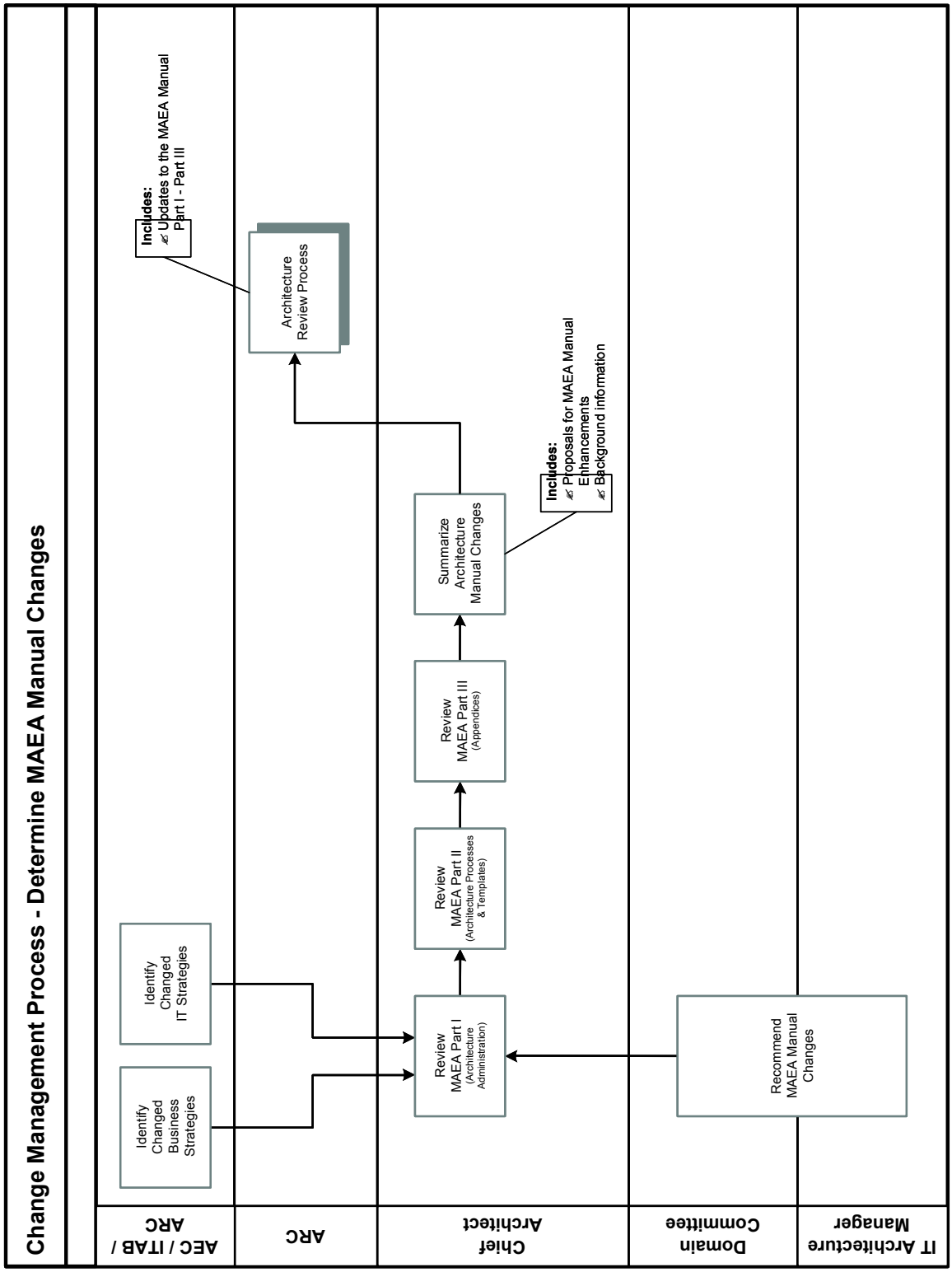
The Architecture Change Management Process will be defined and controlled by the ARC, however the ARC, ITAB, or AEC may initiate actions.

Sub-Processes & Templates

Each of sub-processes follows the same format:

Sub-Process
Process Model
Process Detail
Template (if applicable) - There are no templates as of this draft.
Overview
Sections
Sample Template Form
Template Detail

The Missouri Adaptive Enterprise Architecture (MAEA) Manual presents the guidance and approach for development and administration of the Missouri Adaptive Enterprise Architecture


Change Management Process - Determine MAEA Manual Changes
AEC / ITAB / ARC
ARC
Chief Architect
Domain Committee
IT Architecture Manager
Identify Changed Business Strategies
Identify Changed IT Strategies
Includes:
Updates to the MAEA Manual Part I - Part III
Architecture Review Process
Review MAEA Part I (Architecture Administration)
Review MAEA Part II (Architecture Processes & Templates)
Review MAEA Part III (Appendices)
Summarize Architecture Manual Changes
Includes:
Proposals for MAEA Manual Enhancements
Background information
Recommend MAEA Manual Changes

Determine MAEA Manual Changes

The MAEA Manual is a set of interrelated parts that provide the governance, processes, templates, and educational approach to implement the Architecture Blueprints. Three events can cause the MAEA Manual to be changed:

- Shifts in Business Strategies identified
- Shifts in IT Strategies identified
- Recommendation for manual enhancements coming from the Domain Committees or IT Architecture Managers

Identify Changed Business Strategies – The AEC, ITAB, and/or ARC identifies and gathers relevant business inputs from updated Business Strategic Plans and forwards the information to the Chief Architect. The Chief Architect will need to research changes to the Business Drivers.

Identify Changed IT Strategies – The AEC, ITAB, and/or ARC identifies and gathers relevant IT inputs from updated IT Strategic Plans and forwards the information to the Chief Architect. The Chief Architect will need to research changes to the Enterprise Architecture Pillars. Currently the IT Strategies are reviewed during the State of the State biannually.

Recommend MAEA Manual Enhancements – While interacting with the MAEA Manual, the Domain Committee and other users of the architecture may have suggestions for improvement that could benefit everyone. These recommendations must be taken into consideration for new versions of the MAEA Manual.

Review MAEA Part I - Architecture Administration – Changes in the Business and IT Strategies or recommendations from the Domain Committee/users of the MAEA Manual may cause enhancements to be identified. These enhancements can have a rippling effect on all parts of the MAEA Manual or the Architecture Blueprint.

Changes in the Business and IT Strategies may cause the Business Drivers to change. This can have an impact on the Enterprise Architecture Pillars.

Changes in the Business and IT Strategies may cause the Enterprise Architecture Pillars to change. If the Strategy changes cause changes to the Enterprise Architecture Pillars, there will be a rippling effect. Domains and Disciplines that have relationship with the changed Pillars will need to be put through the *Architecture Documentation Process* to verify they are still valid and undergo modifications as needed.

The Enterprise Pillars will also need to be reviewed as well, to determine if any need to be more strongly emphasized in the Architecture Administration Part I of MAEA Manual. For example, due to the change, an item currently stated as a Best Practice may be elevated to a Principle, or a Technology Trend may be elevated to Best Practice.

These types of changes will also affect the Domains and Disciplines that are related to, or conflicted with the changed Enterprise Architecture Pillar.

Review MAEA Part II - Architecture Processes & Templates – Recommended enhancements may occur in the Architecture Processes & Templates. These could impact existing Architecture Blueprint and communication documentation.

Review MAEA Part III - Appendices – Changes in either MAEA Part I – Architecture Administration or MAEA Part II - Architecture Processes & Templates can cause the MAEA Part III – Appendices to change. Items from Part I and Part II that are removed or added should be reviewed, and any re-training needs for the various architecture stakeholders determined.

Create Summarized Architecture Manual Changes – The Chief Architect summarizes the recommended changes to Part I, Part II, and Part III into a draft review document. Included will be proposals for MAEA Manual enhancements and background information.

The MAEA Part I - Architecture Administrative inputs come from:

- Architecture Administrative Review Results
- Updated IT Strategy plans
- Updated Business Strategy plans
- Recommended MAEA Manual Changes

The MAEA Part II – Architecture Processes & Templates inputs come from:

- Architecture Process & Template Review Results
- Architecture Administrative Review Results
- Recommended MAEA Manual Changes

The MAEA Part III – Appendices inputs came from:

- Architecture Educational Approach Review Results
- Architecture Process & Template Review Results
- Architecture Administrative Review Results
- Recommended MAEA Manual Changes

Architecture Review Process – Once the Architecture Review Document has been prepared, it will be presented by the Chief Architect to the ARC for the *Architecture Review Process***.** The actual update to the MAEA Manual happens during the Architecture Review Process.

Based on the event that triggered the MAEA Manual to go back through the *Architecture Review Process*, the levels of the architecture to be reviewed will be determined as follows:

- Changes to the overarching Business Drivers flow down through Enterprise Architecture Pillars and all levels of the Architecture Blueprint

- Changes to the Enterprise Architecture Pillars flow down through all levels of the Architecture Blueprint
- Changes to the Architecture Processes and Templates flow down through the affected levels of the Architecture Blueprint.

The review during this process will address questions such as:

- Does a new piece of the architecture need to be added?
- Will classifications of existing pieces of the Architecture Blueprint need to be changed?
- Will Disciplines or Domains need to be broken out differently?

This information will be documented for submission to the Chief Architect.

CHAPTER 7: Management Processes

The Architecture Governance processes identified in this manual are an integral part of the overall IT management processes that are used to implement technology solutions within the state and encourage enterprise-wide collaboration. Architecture Governance is closely aligned with Business Strategic Planning, IT Strategic Planning, IT deployment, Project Management and Risk Assessment.

Management processes are those processes that are external to Architecture, and yet have links to or are touched by the Architecture Lifecycle Processes. The full value of the MAEA will only be realized when its processes have been integrated into the State's IT management methods and practices. Currently these processes include:

- Project Management
- TCO/ROI
- Procurement

The increasing failure of traditional software development methods is producing fundamentally new techniques for the execution of IT projects.

These processes are fully defined processes in their own right. The process documentation resides within the department responsible for the process. For example, detail for the procurement process is documented within the Procurement Department.

Project Management

The Project Management Process integration to Enterprise Architecture is currently under development.

TCO/ROI Process

The TCO/ROI process, a sub-process of Project Management, is currently under development.

Procurement Process

The Procurement Process integration to Enterprise Architecture is currently under development.

The Division of Purchasing is linked with the architecture process to assist with procurements associated with the hardware, software and services required by the IT community. The IT community should work closely with Purchasing to assist with identifying potential compliance issues or purchasing trends that may identify changes to technology architecture.